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June 18-21, 2014
Pula, Croatia

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The 54th International Neuropsychiatric Pula Congress
under the High Patronage of the President of Republic of Croatia

His Excellency Prof. dr. sci. Ivo Josipović

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INPC KURATORIUM
DEPARTMENT OF MEDICAL SCIENCES – CROATIAN ACADEMY OF SCIENCES AND ARTS
SOCIETY FOR NEUROPSYCHIATRY
ZAGREB'S INSTITUTE FOR THE CULTURE OF HEALTH

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WORLD FEDERATION OF NEUROLOGY, APPLIED RESEARCH GROUP ON THE ORGANISATION AND DELIVERY OF CARE
INTERNATIONAL INTERDISCIPLINARY MEDICINE ASSOCIATION
EUROPEAN PSYCHIATRIC ASSOCIATION
CENTRAL AND EASTERN EUROPEAN STROKE SOCIETY

Venue

Hotel "Park Plaza Histria" – Pula, Croatia

South East European Society for Neurology and Psychiatry

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PROGRAM

Wednesday June 18th

Bianchera
15:00 – 17:00

7th INTERNATIONAL EPILEPSY SYMPOSIUM IN PULA
"HOW TO TREAT DIFFICULT-TO-TREAT EPILEPSIES"
Chairperson: Hrvoje Hećimović (Zagreb, Croatia)
HOW TO APPROACH DIFFICULT-TO-TREAT EPILEPSIES
Hrvoje Hećimović (Zagreb, Croatia)
DIFFICULT TO TREAT EPILEPSIES IN CHILDREN
Maša Malenica (Zagreb, Croatia)
DIFFICULT TO TREAT EPILEPSIES IN ADULTS
Nikola Vojvodić (Belgrade, Serbia)
FUNCTIONAL NEUROIMAGING: SPECT AND PET IN EPILEPSIES
Sunčana Divošević (Zagreb, Croatia)
EPILEPSY SURGERY AND OUTCOMES
Tomislav Sajko (Zagreb, Croatia)

Bianca Istriana
15:00 – 17:00

ATTENTION DEFICIT HYPERACTIVITY DISORDER – TRUTHS AND FABLES
ADHD – TRUTHS AND FABLES
Dubravka Kocijan Hercigonja (Zagreb, Croatia)
CONCLUSIONS FROM „ROUND TABLE" – A MULTIDISCIPLINARY APPROACH IN THE DETECTION, DIAGNOSIS AND TREATMENT OF CHILDREN WITH ADHD
Dubravka Kocijan Hercigonja (Zagreb, Croatia), Vesna Hercigonja Novković (Zagreb, Croatia)
GROUP TREATMENT OF CHILDREN WITH ADHD
Martina Gajski (Zagreb, Croatia), Dina Koren (Zagreb, Croatia)
ADHD IN CHILDREN AND EXPOSURE TO ABUSE
Gordana Buljan Flander (Zagreb, Croatia), Domagoj Štimac (Zagreb, Croatia), Renata Čorić Špoljarić (Zagreb, Croatia), Dora Kralj (Zagreb, Croatia)

Ulika
17:00 – 18:30

AbbVie SATELLITE SYMPOSIUM
UNMET NEEDS IN THE TREATMENT OF PATIENTS WITH ADVANCED PARKINSON'S DISEASE
PROGRESSION OF PARKINSON'S DISEASE: WHAT ARE THE PROBLEMS?
Vladimir Kostić (Belgrade, Serbia)
THERAPY OF ADVANCED PARKINSON'S DISEASE
Zlatko Trkanjec (Zagreb, Croatia)
CLINICAL EXPERIENCE OF THE NEUROLOGY DEPARTMENT, UNIVERSITY HOSPITA AND MEDICAL FACULTY IN OSIJEK WITH CONTINUOUS APPLICATION OF LEVODOPA/CARBIDOPA GEL IN ADVANCED STAGES OF PARKINSON'S DISEASE
Silva Butković Soldo (Osijek, Croatia)

Bianca Istriana
18:30 – 19:30

ACTIVITIES OF ASSOCIATION OF PEOPLE'S HEALTH „ANDRIJA ŠTAMPAR" IN STROKE PREVENTION
GENERAL ACTIVITIES OF ASSOCIATION OF PEOPLE'S HEALTH „ANDRIJA ŠTAMPAR"
Danko Relić (Zagreb, Croatia)

ACTIVITIES OF ASSOCIATION IN STROKE PREVENTION
Jakov Ivković (Zagreb, Croatia)
PREVENTIVE ACTIVITIES OF ASSOCIATION IN CARDIOVASCULAR DISEASES PREVENTION
Ivan Barišić (Požega, Croatia)
LOGOTHERAPEUTIC APPROACH IN CLINICAL PRACTICE
Ivan Vukoja (Požega, Croatia), Lucija Bagarić Krakan (Zagreb, Croatia)

Bianchera
18:30 – 19:30 Round table: **NEW LAW ON THE PROTECTION OF PERSONS WITH MENTAL DISORDERS** (In Croatian)
NOVI ZAKON O ZAŠTITI OSOBA S DUŠEVNIM SMETNJAMA

Chairperson: Vlado Jukić (Zagreb, Croatia)
Participants: Nadica Buzina, Miroslav Goreta, Danica Kramarić, Ivan Požgain, Davorka Smoljanić

Thursday, June 19th Ulika

09:00 – 10:00 **OPENING CEREMONY**

Guest lecture:
RAAD SHAKIR, President of World Federation of Neurology
WORLD OF NEUROLOGY: THE WAY AHEAD

Main Theme: LIFESTYLE AND PREVENTION OF BRAIN IMPAIRMENT

Chairpersons: Vida Demarin (Zagreb, Croatia), Kurt Niederkorn (Graz, Austria)

10:00 – 11:30 INTERCELLULAR COMMUNICATION VIA EXOSOMES OF MASTER MICRORNA MOLECULAR SWITCHES FOR THE TREATMENT OF NEURAL INJURY AND DISEASES
Michael Chopp (Detroit, USA)
HEALTHY LIFESTYLE AND PREVENTION OF BRAIN IMPAIRMENT
Vida Demarin (Zagreb, Croatia)
MUSIC AND THE BRAIN
Moises Gaviria (Chicago, USA)

11:30 – 12:00 ***COFFEE BREAK***

12:00 – 13:30 MODIFYING STRESS – PRESERVING BRAIN HEALTH
Veljko Đorđević (Zagreb, Croatia)
THE AUSTRIAN STROKE PREVENTION STUDY – DESIGN AND RESULTS
Kurt Niederkorn (Graz, Austria)
THE ROLE OF LIFESTYLE MODIFIERS IN ALZHEIMER'S DISEASE
Euphrosyni S. Koutsouraki (Thessaloniki, Greece)

13:30 – 15:00 ***LUNCH BREAK***

Chairpersons: Maja Relja (Zagreb, Croatia), Norbert Müller (Münich, Germany)

15:00 – 17:00 MENTAL DISORDERS IN RADIATION ENCEPHALOPATHY
Boris Tsygankov (Moscow, Russia)
INTORDUCING BRAIN ECOLOGY PROJECT
Alexey Danilov (Moscow, Russia)

INTEGRATIVE DANCE/MOVEMENT PSYCHOTHERAPY: CAPABILITIES, COMBINATIONS WITH OTHER METHODS AND PROSPECTS
Elena Gayvoronskaya (Voronezh, Russia)
EXERCISE AND DANCE COULD IMPROVE MOBILITY AND QUALITY OF LIFE IN PARKINSON'S DISEASE PATIENTS
Maja Relja (Zagreb, Croatia)

17:00 – 17:30 ***COFFEE BREAK***

17:30 – 19:30 PSYCHIATRIC DISORDERS IN HIGH PERFORMANCE ATHLETES
Valentin Markser (Köln, Germany), Karl Jürgen Bär (Jena, Germany)
THE ROLES OF VITAMINES D AND B6 IN INFLAMMATION AND PSYCHIATRIC DISORDERS
Norbert Müller (Münich, Germany)
MOOD FOOD COMPOUNDS SUPPRESS TRYPTOPHAN BREAKDOWN BY INDOLEAMINE 2,3-DIOXYGENASE (IDO) IN VITRO
Dietmar Fuchs (Innsbruck, Austria)
THE ROLE OF MAGNESIUM DEFICIENCY IN DEPRESSION
Nicolas Singewald (Innsbruck, Austria)

Friday, June 20th

Bianca Istriana
9:00 –10:30 **3rd SYMPOSIUM ON INTERFACE PROVIDERS IN NEUROREHABILITATION**
Chairpersons: Raphael Béné (Zagreb, Croatia), Natko Beck (Zagreb, Croatia)
NEUROPLASTICITY IN THE ADULT BRAIN: WHY IT'S SO IMPORTANT?
Vida Demarin (Zagreb, Croatia)
INTERFACE PROVIDERS AT A CELL LEVEL: THE STEM CELL REVOLUTION
Michael Chopp (Detroit, USA)
ILLUSION OF MOVEMENT AS AN INTERNAL INTERFACE MODEL FOR REHABILITATION
Raphael Béné (Zagreb, Croatia)
INTERFACES FOR AUGMENTATIVE AND ALTERNATIVE COMMUNICATION
Natko Beck (Zagreb, Croatia)
ASSISTIVE TECHNOLOGY AND DAILY REHABILITATION CARE IN PULA
Ines Delzotto (Pula, Croatia)

10:30 – 11:00 ***COFFEE BREAK***

Belica
11:00 – 12:30 **BUILDING PARTNERSHIP BETWEEN CLINICIANS AND FAMILY MEMBERS TO IMPROVE OUTCOMES FOR THE SERIOUSLY MENTALLY ILL**
Chairperson: Donald B. Brown (New York, USA)

Bianca Istriana
11:30 – 13:00 **SOLPHARM / SHIRE** SATTELITE SYMPOSIUM
CAN WE PROPOSE A COMMON APPROACH TO DIAGNOSIS, TREATMENT AND FOLLOW-UP OF ANDERSON-FABRY DISEASE IN SEE REGION?
Chairperson: Vanja Bašić Kes (Croatia)
WELCOME AND INTRODUCTION: IMPORTANCE OF GUIDELINES IN MANAGEMENT OF LSDS
Vanja Bašić Kes (Croatia)

CROATIAN GUIDELINES FOR DIAGNOSIS, THERAPY & FOLLOW-UP OF ANDERSON-FABRY DISEASE
Vanja Bašić Kes (Croatia)
ROMANIAN FABRY DISEASE TREATMENT PROTOCOL
Adela Chirita (Romania)
BULGARIAN GUIDELINES FOR FABRY DISEASE MANAGEMENT – CARDIOLOGIST'S VIEW
Svetlin Tsonev (Bulgaria)

Round Table: **DISCUSSION ON SEE CONSENSUS ON DIAGNOSIS, TREATMENT & FOLLOW-UP OF ANDERSON-FABRY DISEASE**
Chairperson: Vanja Bašić Kes (Croatia)
Participants: Vanja Bašić Kes (Croatia), Maria Puiu (Romania), Adela Chirita (Romania), Svetlin Tsonev (Bulgaria), Aleksandra Pavlović (Serbia)

13:00 – 15:00 ***LUNCH BREAK***

15:00 – 16:30 **POSTER SESSIONS**
Neurology: 15:00 - 15:45
Chairpersons: Zlatko Trkanjec (Zagreb, Croatia), Dragutin Kadojić (Osijek, Croatia)
Psychiatry: : 15:45 - 16:30
Chairpersons: Veljko Đorđević (Zagreb, Croatia), Marijana Braš (Zagreb, Croatia)

Bianca Istriana **MANAGEMENT OF CEREBRAL ANEURYSMS**

16:30 – 18:00 *Chairpersons:* Kurt Niederkorn (Graz, Austria), Günther Lanner (Klagenfurt, Austria)
SUBARACHNOID HEMORRHAGE – THE NEUROLOGISTS VIEW
Thomas Gattringer (Graz, Austria)
ENDOVASCULAR TREATMENT OF INTRACRANIAL ANEURYSMS
Günther Erich Klein (Graz, Austria)
NEUROSURGICAL TREATMENT OF CEREBRAL ANEURYSMS
Günther Lanner (Klagenfurt, Austria)

Belica **PALLIATIVE CARE FROM THEORY TO PRACTICE - CHALLENGES AND OPPORTUNITIES**

16:30 – 18:00 *Chairpersons:* Julijana Franinović Marković (Pula, Croatia), Veljko Đorđević (Zagreb, Croatia)
ORGANISATION OF COMMUNITY PALLIATIVE CARE SERVICE IN THE COUNTY OF ISTRIA
Julijana Franinović Marković (Pula, Croatia), Sonja Grozić Živolić (Pula, Croatia), Roberta Katačić (Pula, Croatia), Ante Ivančić (Pula, Croatia)
MULTIDISCIPLINARY MOBILE PALLIATIVE CARE TEAM (ORGANISATION AND TASKS)
Diego Brumini (Pula, Croatia), Bosiljka Kovačević (Pula, Croatia)
EMOTIONAL OUTCOME IN MOBILE PALLIATIVE CARE TEAM
Tomislav Peharda (Pula, Croatia)
HOW TO INTEGRATE PSYCHOLOGICAL SUPPORT IN PALLIATIVE CARE IN CROATIA
Marijana Braš (Zagreb, Croatia)
COMMUNICATION IN PALLIATIVE MEDICINE – THE ROLE OF CEPAMET
Veljko Đorđević (Zagreb, Croatia)
THE ROLE OF VOLUNTEERS IN PALLIATIVE CARE
Danica Kuzmanović (Pula, Croatia), Nika Spasić (Pula, Croatia), Irena Grahovac (Pula, Croatia)

Ulika **SECONDARY STROKE PREVENTION IN PATIENTS WITH ATRIAL FIBRILLATION**

18:00 – 19:30 *Chairpersons:* Silva Butković Soldo (Osijek, Croatia), Vida Demarin (Zagreb, Croatia), Ivan Bielen (Zagreb, Croatia)

ATRIAL FIBRILLATION AND STROKE
Vida Demarin (Zagreb, Croatia)

WARFARIN: GOLD STANDARD OF ANTICOAGULANT THERAPY
Hrvoje Budinčević (Zagreb, Croatia)

DIFFERENCES AMONG NOVEL ORAL ANTICOAGULANTS
Ivan Bielen (Zagreb, Croatia)

IS THE ACETYLSALICYLIC ACID A GOOD CHOICE FOR PATIENTS WITH ATRIAL FIBRILLATION
Zlatko Trkanjec (Zagreb, Croatia)

Bianca Istriana **FORENSIC PSYCHIATRY**

18:00 – 19:30 *Chairpersons:* Đulijano Ljubičić (Rijeka, Croatia), Vera Folnegović Šmalc (Zagreb, Croatia), Boris Tsygankov (Moscow, Russia)

ASSESSING THE CAPACITY TO PROVIDE A CREDIBLE TESTIMONY IN CHILDREN VICTIMS OF CRIME
Dubravka Kocijan Hercigonja (Zagreb, Croatia), Gordana Buljan Flander (Zagreb, Croatia)

PERSONALITY DISORDERS IN FORENSIC PSYCHIATRY
Tija Žarković Palijan (Popovača, Croatia)

CAPACITY TO TESTIFY – DIMENSIONAL APPROACH?
Vesna Šendula Jengić (Rab, Croatia)

INTRUSIVE BEHAVIOR (STALKING) – A NEW CHALLENGE IN THE FORENSIC FIELD?
Gordan Bošković (Rab, Croatia)

THE PHENOMENON OF VIOLENCE IN FORENSIC PSYCHIATRY
Vesna Šendula Jengić (Rab, Croatia)

FORENSIC PSYCHIATRY IN SLOVENIA: CLINICAL, LEGAL AND ETHICAL ISSUES
Jure Koprivšek (Maribor, Slovenia), Andreja Čelofiga (Maribor, Slovenia)

19:30 **KURATORIUM MEETING**

Saturday, June 21st Ulika

09:00 – 13:00 Joint Meeting with Alps-Adria Neuroscience Section, WFN Applied Research Group on the Organisation and Delivery of Care and Central and Eastern European Stroke Society:

DIFFERENT THERAPEUTIC APPROACHES

Chairpersons: Leontino Battistin (Padova, Italy), Vida Demarin (Zagreb, Croatia)

IMPLEMENTATION OF TELESTROKE NETWORK IN SLOVENIA
Bojana Žvan (Ljubljana, Slovenia)

MANAGEMENT OF INTRACRANIAL STENOSIS
Nadežda Čovičković Šternić (Belgrade, Serbia)

DECOMPRESSIVE SURGICAL INTERVENTIONS IN STROKE
Ljiljana Beslać Bumbaširević (Belgrade, Serbia)

HERBAL DRUGS ARE ALWAYS SAFE?
Anna Czlonkowska (Warsaw, Poland)
NEUROREHABILITATION FOR A BETTER LIFESTYLE
Peter Kapeller (Villach, Austria)
THE COMPLEMENTARY THERAPY OF MULTIPLE SCLEROSIS
Azra Alajbegović (Sarajevo, BiH)
HOW DO WE TREAT REFRACTORY MIGRAINE
Marjan Zaletel (Ljubljana, Slovenia)
HOW DO WE TREAT PARKINSON'S DISEASE
Zlatko Trkanjec (Zagreb, Croatia)
HOW DO WE TREAT MULTIPLE SCLEROSIS
Vanja Bašić Kes (Zagreb, Croatia)

13:00 ***CLOSING CEREMONY***

This meeting is endorsed by the World Federation of Neurology.
WFN members and all interested neurologists are encouraged to attend.
The meeting is open to all neurologists regardless of citizenship.

54th INTERNATIONAL NEUROPSYCHIATRIC PULA CONGRESS

3rd European Psychopathology Summer School in Pula and Inaugural Symposium Evolutionary Psychopathology

Chairpersons: Karl Bechter, Francesco Benedetti, Martin Brüne

FRIDAY, June 20th, 2014 **Bianchera**

09:00 – 10:30 **SPORTS THERAPY IN PSYCHIATRY**

Chairpersons: Karl Jürgen Bär (Jena, Germany), Johannes Schröder (Heidelberg, Germany)

THE ROLE OF EXERCISE THERAPY FOR PSYCHIATRIC CONDITIONS
Karl Jürgen Bär (Jena, Germany), Valentin Markser (Köln, Germany)

11:00 - 12:30 **EVOLUTIONARY PSYCHOPATHOLOGY: INSIGHTS FROM ANIMAL MODELS, CROSS-CULTURAL APPROACHES TO NEUROSCIENCE**

Chairpersons: Martin Brüne (Bochum, Germany), Szabolcs Keri (Szeged, Hungary)

NONVERBAL BEHAVIOUR IN PSYCHOPATHOLOGY: WHY WE NEED TO REVIVE THE INTERPERSONAL DIMENSION IN CLINICAL PSYCHIATRY
Martin Brüne (Bochum, Germany)

SCHIZOPHRENIA AND NATURAL SELECTION: IS CREATIVITY THE "MISSING LINK"?
Szabolcs Keri (Szeged, Hungary)

RELATIONSHIPS BETWEEN EARLY MALADAPTIVE SCHEMAS, LEVEL OF COUPLE SATISFACTION AND INDIVIDUAL MATE POTENTIAL – AN EVOLUTIONARY PSYCHOLOGICAL INVESTIGATION
Alina Rusu (Cluj, Romania)

17:00 - 18:30 EVOLUTIONARY ASPECTS OF NEUROLOGICAL SOFT SIGNS
Johannes Schröder (Heidelberg, Germany)

SHARED NEURAL ACTIVATIONS IN THE RECALL OF WAKING FANTASIES AND OF DREAMS
Francesco Benedetti (Milan, Italy)

THE SEXUAL-EXCRETORY (MAL?) – CONSTRUCTED ORGAN – AN INBORN SOURCE OF PSYCHODYNAMIC CONFLICT
Karl Bechter (Günzburg, Germany)

"Under the patronage of EPA"

2nd PULA NEURO-INTERDISCIPLINARY SCHOOL 16 - 21 June, 2014

"Brain, mind and pain: multimodal (bio-psycho-social) approach to pain management"

UNDER THE PATRONAGE OF THE INTERNATIONAL INTERDISCIPLINARY MEDICINE ASSOCIATION

PROGRAM

MONDAY, June 16, 2014 Taverna

11.00 – 13.00 D. A. Gusakova (Moscow, Russia) – endocrinologist, "Prof. Kalinchenko's Clinic"
VITAMIN D AND ITS EFFECT ON TESTOSTERONE (PRACTICAL SESSION). PREPARATIONS AND DOSAGE OF VITAMIN D.

13.00 – 15.00 Y.A. Tishova (Moscow, Russia) – associate professor at the Department of endocrinology at Peoples' Friendship University of Russia S.Y. Kalinchenko (Moscow, Russia) - professor, head of the Department of endocrinology at Peoples' Friendship University of Russia, Vice-President of the Russian branch of the European Society for the Study of aging male.
TESTOSTERONE. PLACE OF SYNTHESIS. CLINICAL MANIFESTATIONS OF TESTOSTERONE DEFICIENCY AND EXCESS. USE OF TESTOSTERONE PREPARATIONS IN THE TREATMENT OF HYPOGONADISM IN MEN AND WOMEN.

15.00 – 16.00 E.A. Grekov (Moscow, Russia) – head of the Department of urology, "Prof. Kalinchenko's Clinic"
S.Y. Kalinchenko(Moscow, Russia) – professor, head of the Department of endocrinology at Peoples' Friendship University of Russia, Vice-President of the Russian branch of the European Society for the Study of aging male.
DIHYDROTESTOSTERONE. PLACE OF SYNTHESIS. CLINICAL MANIFESTATIONS OF DHT DEFICIENCY AND EXCESS. USE OF DIHYDROTESTOSTERONE PREPARATIONS IN MEN AND WOMEN.

TUESDAY, June 17, 2014 Taverna

10.00 – 13.00 **SATELLITE SYMPOSIUM of ABBOTT company " Woman`s health"**
Handre Demirdere – head of the department " Woman`s and man`s health" Abbott EPD, Russia
S.Y. Kalinchenko (Moscow, Russia)– professor, head of the Department of endocrinology at Peoples' Friendship University of Russia, Vice-President of the Russian branch of the European Society for the Study of aging male.
L.O. Vorslov (Moscow, Russia) – professor, head of the Department of endocrinology at Peoples' Friendship University of Russia.

15.00 – 17.00 S.Y. Kalinchenko (Moscow, Russia) - professor, head of the Department of endocrinology at Peoples' Friendship University of Russia,
ESTROGENS. PLACE OF SYNTHESIS. CLINICAL MANIFESTATIONS OF ESTROGEN DEFICIENCY AND EXCESS. USE OF ESTROGEN PREPARATIONS IN THE TREATMENT OF HYPOGONADISM IN MEN AND WOMEN.

17.00 – 18.00 **SATELLITE SYMPOSIUM of ABBOTT company "Estrogen deficiency"**
Y. A. Tishova (Moscow, Russia) – associate professor at the Department of endocrinology at Peoples' Friendship University of Russia

18.00 – 19.00 **OPENING CEREMONY of the 2nd Neuro-interdisciplinary School "Brain, mind and pain"**
Vida Demarin – M.D., Ph.D., Master of Science and Doctor of Philosophy degrees in the School of Medicine at the University of Zagreb, Croatia, a full-time professor at the University of Zagreb (Zagreb, Croatia)

THE ART OF HEADACHE MANAGEMENT THROUGH HISTORY

Alexey Danilov (Moscow, Russia)- professor at the Department of neurology at I.M. Sechenov First Moscow State Medical University, executive director of the Interdisciplinary Medicine Association (Moscow, Russia).

MIND AND PAIN

WEDNESDAY, June 18, 2014 Taverna

10.00 – 13.00 **INTERACTIVE WORKSHOP. MODERN TRENDS IN PHARMACOTHERAPY OF PAIN SYNDROMES**

1. A. Danilov (Moscow, Russia). HOW TO CHOOSE A DRUG FOR THE PAIN TREATMENT?

2. V. Shirokov (Ekaterinburg, Russia) professor. PECULIARITY OF DIAGNOSIS AND DIFFERENTIATED THERAPY OF SPONDYLOGENIC PAIN SYNDROMES.

3. M. Sharov (Moscow, Russia) professor. MODERN APPROACHES TO THE UNDERSTANDING AND TREATMENT OF DYSFUNCTIONAL PAIN SYNDROMES.

13.00 – 14.00 **Lunch followed by group discussion on the topic of morning session**

14.00 – 17.00 Andrey Danilov (Moscow, Russia) – professor at the Department of neurology at I.M. Sechenov First Moscow State Medical University

PHARMACOTHERAPY OF PAIN. SELECTING THE BEST MEDICINE FOR TREATING PAIN.

Alexey Danilov - professor at the Department of neurology at I.M. Sechenov First Moscow State Medical University

INTERACTIVE COURS – THE ART OF HEADACHE MANAGEMENT

Marijana Braš

DOCTOR-PATIENT COMMUNICATION: The person-centered medical interview

Veljko Đorđević

PSYCHOTHERAPY IN PATIENTS WITH HEADACHE

Tomislav Kuljiš

ORIGIN OF INEFFICIENT STRESS COPING MECHANISMS AND PTSP

Elena Anisimova Đ neurologist.

STRESS MANAGEMENT AS A BASIS FOR PAIN MANAGEMENT

17.00 – 17.30 Lecture

L.B. Novikova (Kazakhstan, Ufa) professor, the chief neurologist of Bashkortostan Republic.

POST AFTER STROKE

18.00 – 20.00 L.O. Vorslov (Moscow, Russia) – professor

INSULIN. PLACE OF SYNTHESIS. CLINICAL MANIFESTATIONS OF INSULIN DEFICIENCY AND EXCESS.

17.00 – 18.30 **SYMPOSIUM COMMUNICATION AGAINST PAIN**

Park Plaza Histria – Executive B (Bianca Istriana)

„Silent Screams“ by Natalija Đorđević

THURSDAY, June 19, 2014

Ulika

10:00 – 11:30

Michael Chopp, (Detroit , USA)
INTERCELLULAR COMMUNICATION VIA EXOSOMES OF MASTER MICRORNA MOLECULAR SWITCHES FOR THE TREATMENT OF NEURAL INJURY AND DISEASES

Vida Demarin, (Zagreb, Croatia)
HEALTHY LIFESTYLE AND PREVENTION OF BRAIN IMPAIRMENT

Moises Gaviria, (Chicago, USA)
MUSIC AND THE BRAIN

Taverna

11:30 – 13:30

SATELLITE SYMPOSIUM of ABBOTT company “All about progesteron”
S.Y. Kalinchenko (Moscow, Russia) – professor
L.O. Vorslov (Moscow, Russia) – professor
M.I Zhilenko (Moscow, Russia) - head of the Department of gynecology, “Prof. Kalinchenko’s Clinic”

13:30 – 15:30 **Lunch followed by discussion**

Ulika

15:00 – 17:00

Boris Tsygankov - professor (Moscow, Russia)
MENTAL DISORDERS IN RADIATION ENCEPHALOPATHY

Alexey Danilov (Moscow, Russia)
INTRODUCTION OF BRAIN ECOLOGY PROJECT

Elena Gayvoronskaya -professor (Voronezh, Russia)
INTEGRATIVE DANCE/MOVEMENT PSYCHOTHERAPY: CAPABILITIES, COMBINATIONS WITH OTHER METHODS AND PERSPECTIVES

Maja Relja (Zagreb, Croatia)
EXERCISE AND DANCE COULD IMPROVE MOBILITY AND QUALITY OF LIFE IN PARKINSON’S DISEASE PATIENTS

FRIDAY, June 20, 2014

Bianca Istriana

9:00 – 10:30

3rd INTERFACE PROVIDERS IN NEUROREHABILITATION SYMPOSIUM
Chairpersons: Raphael Béné (Zagreb, Croatia), Natko Beck (Zagreb, Croatia)

Taverna

11:00 – 16:00

V. P. Tkachev – PhD, dermatologist, endocrinologist, Vice President of Professional Trichologists Association. Member of international trichology association IAT.
Head of the course of medical trichology
SUN EFFECT ON THE HAIR CONDITION.

ANDROGENETIC ALOPECIA – MYTHS AND REALITIES. COMPLEX TREATMENT.
EFFECT OF HRT DRUGS ON HAIR CONDITION.


TERRANOVA
ACTION

HOW TO APPROACH DIFFICULT-TO-TREAT EPILEPSIES

Hećimović H.

University Clinical Hospital, Zagreb, Croatia

Medical intractability of focal epilepsies is part of the ILAE criteria for presurgical evaluation. In Croatia at least 5000 - 7000 epilepsy patients have pharmacoresistant epilepsies, but their treatment, including referal to epileptologists is very slow. Patients who do not respond to AEDs experience psychosocial problems and are subject to cognitive and other drug side effects. Minimum criteria to determine medical intractability are failure of at least 2-3 AEDs of first choice in monotherapy or polytherapy to control seizures.

The rationale for early epilepsy surgery is based on the notion that a therapeutic intervention early in the course of epilepsy will minimize potential long-term psychosocial and cognitive effects of chronic epilepsy and improve quality-of-life outcomes. If acceptable seizure control is not achieved, a patient should be referred to an epilepsy surgery center for further evaluation rather early in their disease..

DIFFICULT TO TREAT EPILEPSIES IN CHILDREN

Malenica M.

Clinical Hospital Center Sestre milosrdnice, Zagreb, Croatia

According to the International league against epilepsy (ILAE) drug–resistant epilepsy is a term consistent with poor prognosis for seizure remission in children with epilepsy when treated with optimal antiepileptic drugs (AEDs).1Identifying correct type of epilepsy and identifying patients at high risk of pharmacoresistance is of crucial importance as uncontrolled seizures will hindernormal neurological development in a child with epilepsy. In addition, drug-resistant epilepsy may have devastating impact on schooling and future employment as well as family life as a whole. Children with epileptic encephalopathies and secondary generalized epilepsies will express pharmacoresistance very early in the course of their epilepsy while in focal epilepsies initial high seizure frequency is indicative of possible drug resistence.2Drug-resistant epilepsy in children is also bidirectionally associated with psychiatric complications hence requiring additional medication. "Sudden unexpected death in epilepsy" (SUDEP) is the leading cause of death in patients with drug-resistant epilepsy thus making most effort in adequately treating children with epilepsy apriority. Appropriately selecting children candidates for epilepsy surgery is of utmost importance as timely surgery may prevent neurodevelopmental deterioration associated with intractable seizures. Managing children with drug-resistant epilepsy is challenging and requires referral to specialized centers that utilize a structured multidisciplinary approach.

Key words: *pediatric epilepsy, drug-resistant, SUDEP, epilepsy surgery*

References

Kwan P, Arzimanoglou A, Berg AT, Brodie MJ, Allen Hauser W, Mathern G, Moshe SL, Perucca E, Wiebe S, French J. Definition of drug resistant epilepsy:consensus proposal by the as hoc Task Force of the ILAE Commission on Therapeutic Strategies. Epilepsia 2010;51(6):1069-77.

Berg AT. Identification of pharmacoresistant epilepsy. NeurolClin 2009;27(4):1003-1013.

DIFFICULT TO TREAT EPILEPSIES IN ADULTS

Vojvodic N.

Neurology Clinic Belgrade, Serbia

Despite optimal medical treatment with antiepileptic drugs (AEDs), pharmacoresistance occurs in 20-30% of adult patients with epilepsy. Epilepsy is generally deemed intractable or difficult to treat if the use of two or more appropriately chosen AEDs fail to control seizures. In those cases, the chance of achieving seizure freedom by introducing subsequent drug regimens has been shown to be less than 10%. Difficult to treat epilepsy is most commonly associated with structural brain lesion and abnormal findings on brain imaging or examination. When considering the most appropriate choice of treatment, it is essential to be confident about the diagnosis and the etiology respectively. In adult patients with pharmacoresistant focal epilepsy it was shown that hippocampal sclerosis, indolent brain tumors and focal cortical dysplasia were the most common underlying pathology. Accurate identification of the epilepsy syndrome is essential for the choice of an appropriate treatment. Epilepsy surgery may be the most useful treatment option in some cases, especially where strong evidence exists for its efficacy, such as for the anterior temporal lobectomy in pharmacoresistant temporal lobe epilepsy. When surgery is not a suitable treatment option, neurostimulation therapies such as vagus nerve stimulation (VNS) or other palliative techniques may be considered.

Key words: focal epilepsies, pharmacoresistance, epilepsy surgery

References

Kwan P, Brodie M. Early Identification of Refractory Epilepsy. N Engl J Med 2000; 342: 314–319.

Wiebe S, Blume WT, Girvin JP, Eliasziw M. A randomized, controlled trial of surgery for temporal lobe epilepsy. N Engl J Med 2001; 345: 311–318.

Mitchell JW, Seri S, Cavanna AE. Pharmacotherapeutic and Non-Pharmacological Options for Refractory and Difficult-to-Treat Seizures. J Cent Nerv Syst Dis 2012; 4: 105–115.

FUNCTIONAL NEUROIMAGING: SPECT AND PET IN EPILEPSIES

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Poliklinika Medikol, Zagreb, Croatia

In patients with epilepsy, the increased ictal neuronal activity during epileptic seizures is associated with increased metabolism and regional cerebral blood flow.

Ictal SPECT is superior than interictal SPECT for the localization or lateralization of epileptic seizure, but because of its low temporal resolution hyperperfusion patterns often contain both the ictal onset zone and the propagation pathways. Subtraction of ictal and interictal scans co-registered to MRI is advisible.

PET/CT is currently the leading diagnostic functional instrument in nuclear medicine, which gives insight into the metabolism and the neuronal activity as well as the distribution of receptors in the brain.It shows characteristic decreased glucose metabolism in the interictal state, lateralises when MRI displays only a mild hippocampal damage, reveals whether hypometabolism is on the ipsilateral side of the brain, or also contralateral, and differentiates between mesial and lateral temporal epilepsy. It is of particular importance in patients who present with a negative MRI finding, for the localization and lateralisation of the disease. PET is a good predictor of the postoperative outcome in patients treated surgically due to pharmacoresistant epilepsy.

Developments in neuroimaging of epilepsy should be based on its impact in the management of patients with intractable epilepsy.

Literatura:

1. Duncan J. The current status of neuroimaging for epilepsy. Curr Opin Neurol 2009;22(2):179-84.

2. La Fougère C, Rominger A, Förster S, Geisler J, Bartenstein P. PET and SPECT in epilepsy: a critical review. EpilepsyBehav 2009;15(1):50-55.

3. Willmann O, Wennberg R, May T, et al. The contribution of 18F-FDG PET in preoperative epilepsy surgery evaluation for patients with temporal lobe epilepsy. A meta-analysis. Seizure 2007;16(6):509-520.

EPILEPSY SURGERY AND OUTCOMES

Sajko T., Hećimović H.

University Hospital Center „Sestre Milosrdnice“, Zagreb, Croatia

We present short term results of MTLE patients operated on due to hippocampal sclerosis.

Patients and methods: 32 patients were operated on from November 2009. until April 2014.

There were 15 female and 17 male, with the mean age of 36,1 years and mean epilepsy duration of 22 years. Standardized preoperative epilepsy evaluation was performed including continuous videoEEG monitoring, high resolution 1,5 T or 3T magnetic resonance (MR), neuropsyhological examination, interictal PET/CT scanning and visual field examination.

Selective amygdalohippocampectomy via subtemporal approach was performed in 28 patients (12 right-sided, 16 left-sided) and in four patients a right-sided standard temporal lobectomy with AH was performed. Follow-up ranged from three months to 51 months. Patients were classified according to the ILAE and Engel classification.

6 out of 32 patients were followed for more than four years, 9 patients for more than three years, 8 patients for more than two years and 6 patients for more than one year. Out of 23 patients with more than a two years follow up, 19 patients (82%) are completely seizure and aura free (ILAE=1a; Engel =1A). Two patients are ILAE=2; Engel=IC. Two patients are ILAE=3; Engel=IIA.

In the majority of patients selective AH was performed using subtemporal approach. Complications occured in only one patient with only transient morbidity. Despite the short term follow-up we feel encouraged with the surgical and seizure outcome and find it comparable with other published series.

ADHD - TRUTHS AND FABLES

Kocijan Hercigonja D.

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Since 1884. to today we can find the diagnosis ADHD in literature and in much research under different name: Sturwelpeter, restless Philip, defect of moral control, minimal cerebral dysfunction and since 1960. ADHD. The evaluation of diagnosis changes though classification from the appearance of the first symptoms, how many criteria must be present. Today we have more and more children with the ADHD. Many authors connect this with a better understanding and recognizing symptomatology. Others think that the professionals give the diagnosis without equall criteria and under that diagnosis we can find many different disorders and illnesses.

There isn´t the same attitude in relation of prevalence either. In the most cases in school children we can find the presence of ADHD between 2-12%, sometimes up to 20%. In relation to etiology we can find numerous factors that depend on their basic education and professions, like social, psychological, biological and genetic.

This is very important because on this depends the therapeutic approach.

Because of different etiology and similar symptoms the obligation of professionals is to do an algorithm for diagnosis and therapy.

CONCLUSIONS FROM „ROUND TABLE“ – A MULTIDISCIPLINARY APPROACH IN THE DETECTION, DIAGNOSIS AND TREATMENT OF CHILDREN WITH ADHD

Hercigonja Novković V., Kocijan Hercigonja D.

Poliklinika Kocijan/Hercigonja, Zagreb, Croatia

The authors present the conclusions from the „Round table“ which was held with the aim of findind the equall methods and diagnostic criteria for ADHD disorder. Previous experiences indicate unsteadiness of the diagnostic of ADHD disorder which offten results with inadequate therapeutic approaches such as stigmatization of these children which leads to numerous emotional problems for them, from leaving school to development of behavior disorders. Mental health professionals presented their vision of problem children and adolescents with ADHD disorder, and found same attitude to acceptance equall algorith for diagnosis and therapy which exists in many countries across Europe and in the whole world.

The next step as the result of the „Round table“ are seminar for professionals and teachers to teach them how to better identify the problem and through their optimal approach enable the children with ADHD to use all their capaticy and not to develop numerous behavioral disorders.

GROUP TREATMENT OF CHILDREN WITH ADHD

Koren D., Gajski M.

Poliklinika Kocijan/Hercigonja, Zagreb, Croatia

ADHD is a neurodevelopmental disorder of inadequately controlled behavior that affects about 3-6% of the population and it is more common between male children. Due to it's relatively high prevalence, it is a major obstacle for children with ADHD, their families and the entire educational system.

Through child's development different symptoms of ADHD become more or less visible. The most important is to prevent and reduce all the extra " nonspecific " symptoms that are comorbid to ADHD, such as bad self image, low self-esteem, aggression, poor school performance, social withdrawal, inadequate strategies to cope with stress, etc. Children with ADHD have problems in social skills and because of this problem they are often rejected from other children and negatively labeled in classroom environment. Looking from this point of view, the ideal intervention for them is to participate in group workshops with many different topics helping them to understand social situations and also to know that there are other children with similar problems and feelings. Considering that ADHD children are often confused with their own aggressive energy and that they have behavioral problems and problems in relationships with others, it is important to give them an opportunity to express their energy and experience, project, accept and express their emotions in a safe way. This helps ADHD children to develop social skills and feelings of being accepted, this helps them to learn adequate mechanisms how to solve a problem and how to cope with stressful situations, how to recognize and resolve conflicts in a socially acceptable way, how to change their behaviour, establish a better self-control, etc. Children with ADHD have difficulties to generalize learned, they rapidly lose their motivation for harder, uninteresting, long-lasting tasks, which is also a big challenge for parents, school staff, therapists and other professionals. That is why professionals should put an effort to find a way how to set realistic and achievable goals in the treatment children with ADHD.

ADHD IN CHILDREN AND EXPOSURE TO ABUSE

Kralj D., Buljan Flander G., Ćorić Špoljar R., Štimac D.

Child Protection Center of Zagreb, Croatia

A child with ADHD is demanding both to parent and to educate. S/he can have difficulties in social and family relationships, which are often loaded with tension. It is possible that parents do not recognise and understand their child's needs and difficulties, have high expectations the child cannot possibly fulfill and react inadequately due to their own frustration. Therefore, children with ADHD are at risk of inadequate parenting, parental neglect and abuse.

Data from the clinical practice of the Child Protection Center of Zagreb are presented in this paper and include exposure of children with ADHD syndrome (N=530) to inadequate parenting, parental neglect and abuse. They also include an analysis attempting to determine the existence of some specific factors both in the parents and in the children, which may be risk factors for the exposure of children with ADHD to the aforementioned parental behaviours. Descriptive statistics was used for data processing and nonparametric procedures were used for the analysis.

Results show that among the children with ADHD, the level of parents' education, divorce, child's gender and the loss of a close person, are the variables which may help differentiate between the children exposed to a certain type of inadequate parenting, as compared to children who are not exposed to such parenting.

With regard to the obtained data, we reviewed general guidelines for work with parents of children with ADHD syndrome.

GENERAL ACTIVITIES OF ASSOCIATION OF PEOPLE'S HEALTH „ANDRIJA STAMPAR“

Relić D.[1], Njavro L.[1], Mašić M.[1], Dodig V.[1], Šuman O.[1], Antunović R.[1], Čirko L.[1], Plazibat O.[1], Romić M.[1], Asančaić A.[1], Hlupić M.[1], Šimunović R.[2], Barišić F.[3], Ivković J.[1], Vukoja I.[1]

[1] Association of people's health "Andrija Štampar", Zagreb, Croatia
[2] Community health center Pozesko-slavonska county, Požega, Croatia
[3] Bureau of emergency medicine Pozesko-slavonska county, Požega, Croatia

Association of people's health "Andrija Stampar" (hereinafter Association) was in 2009 at the School of Medicine, University of Zagreb. The Association works in close collaboration with School of Medicine especially Andrija Stampar - School of Public Health. The aim of the Association is to bring together medical students, young physicians, other students and academic people whose activities are closely related to the promotion of people's health, awareness of the importance of health and disease prevention.

"Spend a healthy day"

Project carried out by the Association on 7th April every year to celebrate World Health Day. Project is held in cooperation with City of Zagreb, "Andrija Stampar" School of Public Health and a branch of the World Health Organization for Croatia. Association members and other guests looking for healthy lifestyle celebrate this day with bicycle riding in a length of 15 km (one way). Some members organize measurement of blood pressure and blood glucose for the public on few very frequent locations in the city of Zagreb.

"Be cool, don't be a bully"

Prevention of peer violence among elementary school children, which is implemented in the classroom on the type of active workshops moderated by educated members. Through an interactive workshop and close cooperation with the target population, we operate directly with evidence based and pedagogic methods. Further we share to children the brochure with occasional articles about peer violence and behaviors and activities that prevent it.

"Days of Andrija Stampar"

Education Symposium is a three-stage symposium in which each stage is a single component but in general achieves the same goal. The main thought of the project is that person and the patient must not only be considered through the prism of his illness - each person should be observed in the unity of his physical, mental, social and spiritual aspects.

"CROSS - CROatian Student Summit"

The CROatian Student Summit is an international scientific congress of students and young scientists in the field of biomedicine. This is a project which was started by the School of Medicine Student Association at the University of Zagreb in the academic year 2004/2005, in collaboration with the School of Dental Medicine, the Faculty of Veterinary Medicine and the Faculty of Pharmacy and Biochemistry of the University of Zagreb. In the course of the last several years, this Congress has found its place as one of the leading congresses in the field of biomedicine among students from both Croatia and abroad. The aim of this Congress is to provide an opportunity for students and young scientists at the very beginning of their careers to participate at such an event which presents an important part of their further education, not only as a way of getting new information in the field of biomedicine, but also as an opportunity to establish important connections with people in the same field. Association works as a co-organizer of this significant scientific event.

Cooperation and Partnerships

We work closely with a lot of medical and public health oriented organizations of which we have to highlight Croatian Academy of Sciences and Arts, Croatian Stroke Society and Croatian Young Physicians Association.

ACTIVITIES OF ASSOCIATION IN STROKE PREVENTION

Ivković J., Antunović R., Njavro L., Mašić M., Puljević M., Kereković E., Baran M., Vukoja I.

Association of people's health "Andrija Štampar", Zagreb, Croatia

Cardiovascular and cerebrovascular diseases are leading cause of death in Europe, but also in Croatia. With the aim of raising public awareness about the risk factors for cardiovascular and cerebrovascular diseases, we conducted a stroke risk survey in two different location in two years in Croatia.

Survey in Pleternica (Slawonia, Croatia) took part in the year 2013 as public healthdoor to door activity in which standardized questionnaire was used, while survey in Kvaternik Square in Zagreb took place in the year 2014 as an questionnaire offered to random passangers.

Our results have shown great difference between inquirers independently of age and sex between population in rural part of Pleternica and random passengers in Zagreb. Collected data have shown that 59 % of respondents in Zagreb have systolic blood pressure higher than 140 mmHg, while 62% of inquirers in Pleternica have normal systolic blood pressure (lower than 140 mmHg). Also 9,5% of inquirers in Zagreb have diabetes, while only 3% of inquirers in Pleternica have diabetes. No significant difference has been noted between this two populations, both have dominant overweight inquirers.

Although this is not a representative comparation, this data leads us to the conclusion that stroke risk could be higher in Zagreb than in rural part of Pleternica. In this survey we did not consider the reasons for such results, but we can certainly conclude that public health activities are definitely good and sometimes the only way to affect the development of awareness of the entire community.

PREVENTIVE ACTIVITIES OF ASSOCIATION IN CARDIOVASCULAR DISEASE PREVENTION

Barišić I., Vukoja I., Romić M., Njavro L., Rikić J., Relić D., Bardak D., Vasilj T., Ivković J.

Association of people's health "Andrija Štampar", Zagreb, Croatia

A major activity of Association is professional and educational symposium „Stampar days" which consists of three parts and makes an unique component with appointed goal of prevention of cardiovascular diseases with public health campaign. One component presents active involvement of educated members of Asscociation that have been taken short version of Croatian health survey (HSA) questionnaire has been used in the door to door survey during which they have been measured blood pressure and glucose level in blood of population in rural area of town Pleternica. Assesement of differences in morbidity, socioeconomic and behavioral characteristics of are also have been investigated.

Within 4 years survey has taken in south eastern and south western rural parts of Pleternica and also in north eastern part. Data that were collected in Brodski Drenovac, birthplace of Andrija Stampar, one of the founders of the World health organization are processed.

Results are similar those published by Milosevic et al 2003. Although alcohol consumption is higher (29,58 units of pure alcohol) than recommended by WHO (21 units), it is almost than double lower than Croatian average in alcohol per capita consumption. No double effect for cardiovascular disease risk for men that drinks and don't drink alcohol has been noted, but higher incidence of hypertension and hyperlipidaemia is noted in women that drinks alcohol.

When tobacco smokers and non smokers data were processed results have shown that tobacco smokers have slightly more common cardiovascular diseases, and suprisingly tobacco smoking is almost than double higher than Croatian average.

Although this is small sample it is representative percentage of habitants in Brodski Drenovac and therefore this results could be starting point for next preventive activities and surveys of Association.

LOGOTHERAPEUTIC APPROACH IN CLINICAL PRACTICE

Bagarić Krakan L.[12], Vukoja I.[1], Ivković J.[1], Godan J.B.[2], Asančaić A.[1]

[1] Association of people's health "Andrija Štampar", Zagreb, Croatia
[2] University hospital center Zagreb, Croatia

Logotherapy is a type of psychotherapy founded by Viktor Frankl and it starts from assumption that man is a biological, mental and spiritual being. Mental and spiritual instance are interrelated and inseparable, depend on each other. Heritage, culture, environmental impact, origin, education and many other factors determine the uniqueness of the person, his/her way of life. As such, each individual has a particular task for her/him. The unique of a task is manifested in its discovery, not givens. The question of meaning is the most often in spiritual struggles and sufferings and it represents human in full dimension. Therefore, we have decided to show a patient who experienced traumatic head injury and become blind. He has been hospitalized in other psychiatric institution where he was treated by a combination of antidepressants, anxiolytics and antipsychotics in low doses. There was no significant improvement in mental condition. At our Clinic has been treated with individual psychotherapy; logotherapy and combined pharmacotherapy. In clinical examination there were the following symptoms; depressed mood, hopelessness, lack of perspectives, low self-confidence, pessimism, apathy and anxiety. In psychotherapy he said that after injury feels worthless for family, business and the environment as such. Changing „point of view" values, examining the possibility of action from another perspective leads to improvement in mood, better functioning in family and reducing anxiety. He searches for new business activities and involves in social occupations. In conclusion disease in this patient is an opportunity for transcendence and finding meaning in suffering.

Each person has a free choice; freedom from or for something. For example, renunciation denied in a person immediate pleasure or satisfaction but emphatic directed toward another person will fulfill and give final meaning to the committed gesture.

Therefore pleasure is not what a person wants; it is passable experience that occurs after the fulfillment of our ideals. Man should strive to creative, perceptional and standpoint values. These are everyday tasks and represent a way of living and give us the opportunity for transcendence over pleasure but for the final joy. Self-realization is not man's final instance, but realizes by meeting of its meaning. Certain dose of tension and anxiety leads us to progress. There are numerous challenges for man by society and even himself. With logotherapeutic approach we try to accept the challenges, overcome yourself because of something bigger and find meaning in life and suffers with which we deal every day.

NOVI ZAKON O ZAŠTITI OSOBA S DUŠEVNIM SMETNJAMA

Jukić V.

Klinika za psihijatriju Vrapče, Zagreb, Hrvatska

Zadnjih tridesetak godina gotovo sve zapadne zemlje su donijele zakone o mentalnom zdravlju kojima je reguliran odnos prema duševnim bolesnicima i postupanje s njima. Razlozi donošenja takvih zakona leže u činjenici da su duševni bolesnici često u stanju da nisu kadri testirati realitet te postupati u skladu sa svojim interesima. Zbog toga su žrtve mogućih manipulacija.

Hrvatska je takav zakon, pod nazivom Zakon o zaštiti osoba s duševnim smetnjama donijela 1997. godine, a on se primjenjuje od 1. siječnja 1998. godine.

Zbog određenih nedorečenosti i zbog problema u njegovoj primjeni u dva je navrata bilo došlo do njegovih izmjena i dopuna. Sada, nakon 15-ak godina, u novim ipak donekle promijenjenim uvjetima, došlo se do zaključka da je potrebno izraditi novi Zakon o zaštiti osoba s duševnim smetnjama. Radna skupina Ministarstva pravosuđa je sačinila nacrt Zakona. Zakon je prošao prvo čitanje i upravo je sada, na aktualnoj sjednici Hrvatskog sabora na drugom čitanju. Očekuje se njegovo prihvaćanje do 15. srpnja. Trebao bi se primjenjivati od 1. siječnja 2015. godine.

Novi Zakon o zaštiti osoba s duševnim smetnjama donosi niz novih rješenja kojima je cilj poboljšati položaj osoba s duševnim smetnjama u društvu. Poseban je naglasak na liječenju osoba s duševnim smetnjama. Nacrt Zakona donosi novosti na planu prisilne hospitalizacije osoba s duševnim smetnjama, te prisilnog liječenja osoba s duševnim smetnjama koje su u neubrojivom stanju počinile kazneno djelo. Novosti su i glede provođenja nekih posebnih terapijskih postupaka (elektrokonvulzivna terapija). Posebno je pomno razrađena problematika uključivanja osoba s duševnim smetnjama u biomedicinska istraživanja.

O svim ovim i drugim temama razgovarat će se na okruglom stolu s ciljem da se hrvatski psihijatri što bolje upoznaju s novim Zakonom kako bi ga, kada stupi na snagu, mogli uredno primjenjivati.

WORLD NEUROLOGY: THE WAY AHEAD

Raad S.

World Federation of Neurology

Fostering quality Neurology and brain health is the mission of the WFN. This is clearly applicable to those most in need. The glaring discrepancy of neurological deaths, disability and marked lack of Neurologists across the world is well described in WHO/WFN Neurology atlas. There are certain parts of the world where there is less than one neurologist for more that one million inhabitants. There are also countries with no neurologists at all.

Our role is to provide training and education not only to existing neurologists and trainees, but to branch out and educate non-neurologists and paramedical staff in neurological care.

This mission needs collaboration from all stakeholders. National and regional organizations should play a vital role, as they are the ones with first hand knowledge of the situation on the ground. Global involvement, through Regional Empowerment and National participation is the way ahead. The World Federation should be the catalyst in formulating policy and advice to all societies across the world. The formation of Regional Directors Liaison committee to interact and directly help and advise is one way of close collaboration. The WFN will make sure that Regional Directors have a major say in the way ahead.

Consolidating the close alliance with peer organizations such is WFNS, WPA, WFNR, ICNA, ILAE, WSO, ADI in addition to the Neurology Specialty Groups is a main plank of overall strategy to influence all international bodies through the WHO and the UN on the importance of Neurological disorders and their possible consequences across the world.

INTERCELLULAR COMMUNICATION VIA EXOSOMES OF MASTER MICRORNA MOLECULAR SWITCHES FOR THE TREATMENT OF NEURAL INJURY AND DISEASES

Chopp M.

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The response to neurological injury and disease is both a local and systemic one in which the central nervous system (CNS), reverts in some ways to a quasi-ontogenous state, attempting to restore neurological function, by stimulating endogenous restorative/remodeling processes. In this presentation, I will primarily focus on how the CNS post neural injury/stroke initiates neurite "rewiring" in the ipsilateral and contralateral hemispheres as well as in the spinal cord. Data will be presented from both human stroke and animal correlates, illustrating robust post injury plasticity and intense communication with other organs/tissues, e.g. bone marrow. Molecular underpinnings of these restorative events will be described, e.g., where the developmental morphogen, sonic hedgehog (Shh) is shown to be activated by stroke/injury and neurodegenerative diseases. This activation stimulates neurite outgrowth and likely contributes to the rewiring of the CNS. Delving deeper into the molecular targets of recovery, I discuss how restorative therapies, such as cell-based therapies, which amplify neurological recovery and stimulate remodeling and rejuvenation of tissues, communicate with and alter their environment. I will describe and discuss the essential roles of microRNAs, master molecular switches-that regulate gene translation, in mediating many biological processes. I will demonstrate that stem-like cells encapsulate miRNAs within tiny lipid particles, called exosomes (40-100nm), and thereby, transfer key genetic regulatory instructions to tissue adjacent to and remote from the stem cells. This exosome/miRNA communication network underlies a vast arena of biological processes and can be employed to understand disease and to promote recovery thereof.

HEALTHY LIFESTYLE AND PREVENTION OF BRAIN IMPAIRMENT

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Human brain, the key of individual and social human behaviour is certainly the most complicated system on the earth and enormous investigations tried, and are still trying to resolve the secret of its functioning. Results of numerous investigations during Decade of the Brain, by sofisticated diagnostic methods, point out the importance of neuroplasticity of the brain, the mechanism that was described already at the end of 19th century, but at the time, still without scientific proof. This mechanism shows that brain is not static organ, but on the contrary, by development of new connections between cells and new pathways, its functions could be restored as well as preserved even in the older age.

Brain diseases are frequent, causing disability and changes in the quality of life of the patients and his family, as well with the huge social and financial burden. According to European Brain Council costs of brain disorders in Europe are 798 billions of Euros per year, what is one third of the whole health expediture per year.

Adequate blood supply of the brain is prerequisite for brain health with control and mangement of behavioral, enviromental and metabolic risk factors.

The four most important keys for healthy brain are in our hands: healthy nutrition (Mediterranean Diet), regular physical activity, stress management and „brain fitness".

The importance of nutrition in preserving the brain health is a subject of investigation for many years, pointing out the role of polyunsaturated fatty acids from fish consumtion, abundance of fruits and vegetables, whole grains, olive oil and red wine, what are all main ingredients of Mediterranean Diet. The adherence to this diet leeds to improved endothelial function, increased plasma antioxidant capacity and reduction of insulin resistence, what contributes to prevention of stroke, neurodegenerative disorders, metabolic syndrome etc.

Regular physical activity increases the level of BDNF what is of utmost importance for cognitive functioning and decreased risk fo depression.

Control and management of stress in a daily living is the third key in preserving healthy brain especially important nowdays when human circuits are overloaded and people are bombarded with constantly changing mental challenges. It is estimated that we encounter a thousand times more events per year than our great-grandparents did, but the time available for decision-making remains the same or even less. In the era of person-centred approach techniques for stress relieve should be individually tailored and stress should be properly managed.

And the fourth key, again something what we can practice by ourselves is an array of different brain fitness tasks which contribute greatly to healthy brain.

MUSIC AND THE BRAIN

Gaviria M.

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Music trough all civilizations has been a common product of culture and evolution but most important the different structures in the brain have evolves and adapted according to the circumstances but also the development of connections in the brain. The presentation will give a historical perspective of the networks who are involved in music as well as the process that involves limbic system and frontal lobe. We will also present the relation with other sensory stimulation organs specially the vision compare the brain of musicians and no musicians and conclude that the musical expression in composer and musicians is possible because the brain plasticity that guides the evolution of neural networks. Finally the potential use in illness such Alzheimer's will be discusses The new tecniques of FMRI will illustrate the brain in action while performing music.

MODIFYING STRESS – PRESERVING BRAIN HEALTH

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Personalized medicine is the latest life-science innovation that is informed by each person's unique clinical, genetic, genomic and environmental data. One of the very important topic in personalized medicine is stress. Stress has a role in humans as a method of reacting to difficult and possibly dangerous situations. Perception of sress is influenced by one's experiences, genetics and behavior. Stress can be acute and chronic. The acute stress response was essential to survival in a time when human beings faced many physical threats. Stresses of modern life are more likely to be chronic and often psychological and interpersonal. Stress can affect people of all ages, genders and circumstances and can lead to both physical and psychological health issues. In its acute form, stress causes only transient changes within the body. Different factors may prolong this "fight, flight or freeze" reactions in the body. Chronic stress is the response to emotional pressure suffered for a prolonged period over which an individual perceives he or she has no control. Chronic stress can occur in response to everday stressors that are ignored or poorly managed, as well as to exposure to traumatic events. Hans Selye describes three stages of the General Adaptation Syndrome, including an initial brief alarm reaction, followed by a prolonged period of resistance and a terminal stage of exhaustion and death. Selye defined stress as the non-specific response of the body to any demand placed on it. The body's principal physiological responses to stressful stimuli are mediated by the sympathoadrenal system and the hypothalamic pituitary adrenocortical (HPA) axis, which are, in turn, mediated by the hippocampus. Chronic exposure to stress diminishes health and increases susceptibility to mental disorders. Severe and/or prolonged stress can have health consequences and adversely affect the immune, cardiovascular, neuroendocrine and central nervous systems. Chronic stress is often considered a negative modulator of the cognitive functions including the learning and memory processes. Mental stress, which may range in intensity from mild to severe posttraumatic stress disorder (PTSD), has been reported to impair memory possibly by elevating excitatory amino acid and glucocorticoid levels, which in turn induce excitotoxicity and hippocampal atrophy. Stress mediates a variety of effects on neuronal excitability, neurochemistry, and structural plasticity of the hippocampus. Chronic stress lead to structural changes in the brain. During the lecture possible models of stress management will be presented.

ROLE OF LIFESTYLE MODIFIERS IN ALZHEIMER'S DISEASE

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In order to reduce our vulnerability to Alzheimer's disease, there are simple lifestyle choices including physical and mental activity and healthy diet.

A 2005 Finnish study showed that middle-aged people who engaged in leisure-time physical activity at least twice a week halved their likelihood of developing the disease 20 years later. A 2006 study found that people 65 years and older who engaged in 15-minute sessions of physical activity three or more times a week reduced their risk of dementia by about 40 percent. Their activities included walking, stretching, calisthenics and swimming.

Studies in the 1990s showed that higher levels of education reduced people's later risk of Alzheimer's. In a 2002 study, scientists surveyed 800 Catholic nuns, priests and brothers ages 65 or older. Those who were most engaged in reading books or the newspaper, playing card games and going to museums were about half as likely to develop Alzheimer's as those who were least engaged in these activities. More recent studies are expanding the list of things we can do to benefit our minds. They include gardening, do-it-yourself projects, keeping mentally active at work, taking classes, traveling, volunteering, participating in politics, being involved in religious activities and playing a musical instrument. Some television programs stimulate our critical thinking, but passive TV watching has the opposite effect.

Mediterranean Diet is now being investigated for its possible role in Alzheimer's prevention. Several studies have analyzed individual components of the diet, especially the fish and vegetables rich in healthy omega-3 fatty acids, but results have been mixed. Researchers in 2006 showed that the people whose diets most resembled the Mediterranean pattern had a 40% lower rate of Alzheimer's.

By leading a brain-healthy lifestyle, we may be able to prevent Alzheimer's symptoms and slow down, or even reverse, the process of deterioration.

MENTAL DISORDERS IN RADIATION ENCEPHALOPATHY

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Chernobyl accident was major nuclear disaster in the history of mankind. Elimination of the consequences required large number of people. Most of them were exposed to the doses of radiation meeting criteria of so-called "low doses": 5 - 100 cGy. The impact of these doses on human health is not fully researched; mainly it refers to mental disorders.

The purpose of our study was to investigate the clinical and pathological patterns of formation of mental disorders in liquidators exposed to "low doses" of radiation because of the Chernobyl accident.

A group of 500 liquidators was examined in a continuous research during 1995-1999 and in 2000-2001. Clinical, clinical-psychological and psychophysiological methods were mainly used; biochemical blood analysis and functional studies also were used. Change in clinical parameters and survey results were observed in the dynamics.

Primary morbidity: a separate group of "cerebrovascular disorders" was highlighted. In 1989 it accounted for 14 % of primary morbidity, digestive diseases - 9%, and respiratory diseases - 45 %. In 1994, vascular disorders accounted for 43 %, respiratory diseases - 7% , and the digestive diseases - 25; In 1998 cerebral vascular disorders took first place in the primary morbidity, alongside with the increase of combined diverse classes "neoplasm", "endocrine system disorders" and "blood diseases".

Disability: In 1990 cerebrovascular disorders occupied 37 % of all cases of disability, in 1993 - 84% of all disability. These disorders consisted of 90% cerebral disorders and had a tendency to deteriorate over time.

We have shown that by the year 1998-1999 the psychoorganic syndrome was presented in 65% of liquidators, and in 83% of cases because of the cerebral vascular disorders. The following clinical forms were described: affective (80%), psychopathic (14.8%), and dementic (5.2%).

Over time among the liquidators the number of diseases of various organs and systems are increasing. Among these diseases, cerebrovascular disease comes first; organic CNS lesion (radiation encephalopathy) results in clinically detectable psychoorganic syndrome in the major group of examined liquidators. Thus, it can be concluded that even "low doses" of radiation are danger for mental health and its effect grows over time.

INTRODUCING BRAIN ECOLOGY PROJECT

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The brain is the most complex structure in the universe. As well as providing the basis of our personality, thoughts and feelings the brain is also the origin of many chronic disabling diseases that hugely impact on society and which place an increasing strain on healthcare systems, as the population ages. But our brains also enable us to achieve many amazing successes.

The Brain Ecology represents educational project aimed to diminish the burden of brain disorders by cognitive and behavioral changes attractive to most people of different ages.

INTEGRATIVE DANCE/MOVEMENT PSYCHOTHERAPY: CAPABILITIES, COMBINATIONS WITH OTHER METHODS AND PROSPECTS

Gayvoronskaya E.

Dance/Movement Psychotherapy is a relatively new term based on the nearest equivalent Dance/Movement Therapy term, but with some fundamental differences. Unlike Dance/Movement Therapy, Dance/Movement Psychotherapy is an integral multicomponent process, in which along with motor activity there are such equivalent and sometimes superior phenomena as psychoanalytic interpretation of unconscious locomotive material, direct process emotional transformation, including its interactive component, group discussion, sufficient in time verbal communication with the therapist and many other psychological phenomena, methods and techniques.

Thus, Dance/Movement Psychotherapy in its content and form is an integrative method, which is more efficient than isolated monotherapeutic techniques in concern of corrective influence on personality. Use of Integrative Dance/Movement Psychotherapy term emphasizes connection between Dance/Movement Psychotherapy and a wide range of theoretical views and practices not directly associated with any movement or dance activity, but enriching this direction of therapy and psychocorrection and making a large space for creative combinations aimed at getting human psychophysical balance, harmony and best adaptation. Hence, combination of Dance/Movement Psychotherapy and other therapeutic methods and uniting them into one integrated person-centered strategy give almost unlimited opportunities for work with an individual person.

Among these relevant methods can be noticed such methods as psychoanalysis, music therapy, voice therapy, gestalt-therapy, process therapy, art therapy and such interesting method as sensory correction, as well as many others. Number of techniques and therapeutic programs is constantly growing; they become more meaningful, scientifically sound and effective.

Integrative Dance/Movement Psychotherapy can be applied to various cohorts with different psychopathologic or somatic manifestations, including age-related changes, as well as various degrees of disadapatation. This integrative method can also be applied to healthy people in order to solve psychological and other tasks set; besides, it has broad development prospects.

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EXERCISE AND DANCE COULD IMPROVE MOBILITY AND QUALITY OF LIFE IN PARKINSON'S DISEASE PATIENTS

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Parkinson's disease (PD) is a common progressive neurodegenerative disorder characterized by tremor, rigidity, slowness of movement, postural instability, and is associated with progressive dopaminergic (DA) neuronal loss of the substantia nigra. But PD could also severely impact psychological and cognitive aspects of well-being and non-motor manifestations of PD may precede the motor symptoms by several years. It is accepted today that non-motor symptoms have even greater impact on health-related quality of life (HRQOL) in PD than motor symptoms. Since the introduction in clinical practice in late 50s, levodopa is still one of the best treatment for PD. But drugs and pharmacology do not fully address all symptoms especially non-motor. Thus, HRQOL in PD must be address with appropriate additional exercise-type therapy. Although 'exercise may be good for everyone',only in PD which is not a muscle-wasting disease the intense exercise have been studied. Randomised studies have been conducted and many are in progress indicating that dance therapy and even some type of boxing may improve HRQOL in PD. Ongoing research will be presented to explain mechanism of dance and exercise on neurodegenerative process in PD. Due to the increasing aging population, the number of people living with PD is expected to double by 2030 and additional method should be combined with medication.

PSYCHIATRIC DISORDERS IN HIGH PERFORMANCE ATHLETES

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The prevalence of psychiatric conditions among elite athletes is still under debate. Professional athletes are subject to massive somatic, as well as social and emotional strains. Despite the great public interest for the athletic achievements, the emotional strains are very poorly investigated and recognized. The main reason for this is the widespread assumption that only the emotionally very strong athletes are able to compete at highly professional level. More and more evidence has accumulated that high performance athletes are not protected from mental disorders as previously thought. We want to discuss the issue of the sport-specificity of selected mental diseases in elite athletes. Specific aspects of eating disorders, exercise addiction, chronic traumatic encephalopathy and mood disorders in the context of overtraining syndrome are examined. In particular, the interrelationship between life and work characteristics unique to elite athletes and the development of mental disorders will be shown. Sportpsychiatry and –psychotherapy can be defined as a discipline, whose focus is the investigation, treatment and prevention of the extreme and sport specific emotional strains and disorders.

It will be suggested that the physical and mental strains endured by elite athletes might influence the onset and severity of their psychiatric disorder. Supervision should start very early on to identify individual stress related factors and should be considered in the training scheme. Beside the existing research strategies dealing with the amount and intensity of exercise further research on psycho-social factors is needed to better understand the sport-specific aetiology of mental disorders in high performance athletes.

THE ROLES OF VITAMINES D AND B6 IN INFLAMMATION AND PSYCHIATRIC DISORDERS

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The role of vitamin D in inflammation is established since a long time. Specifically, several studies show that in multiple sclerosis (MS), schizophrenia, and major depression the lack of vitamin D in childhood is a risk-factor for the disease. Whether the acute lack of vitamin D in adulthood is associated with the outbreak or worsening of the disease and – also subject of studies – the supplementation of vitamin D even might have therapeutic effects is a matter of controversies. An overview on the current state regarding the role of vitamin D will be given.

Immune activation induces a pro-inflammatory state and enhances via the enzyme IDO the tryptophan (TRP) degradation into kynurenine (KYN). This mechanism has been reported to be involved in the pathophysiology of major depression and also in schizophrenia. It is reported that vitamin B6 is the co-factor of the enzymes kynureninase (KYNase) and kynurenine-amino transferases (KATs). Deficiency of vitamin B6 would induce accumulation of KYN or 3-hydroxykynurenine (3HK) while vitamin B6 supplementation could increase formation of 3-hydroxyanthranillic (3HAA) and kynurenate.

An own study showed a decrease in vitamin B6 levels in depressed patients. However, there is no clear association between vitamin B6 levels and disturbance in kynurenine levels except an increased 3HK/KYN-ratio in patients. This indirectly indicates that patients may have 3HK accumulation due to a disturbance in kynureninase enzyme activity which is vitamin B6 dependent and degrades 3HK.

Since patients are under treatment, the antidepressant therapy might have partially corrected the original disturbances of some kynurenines. However, an uncorrected reduction of vitamin B6 levels might, in the long run, lead to impaired enzyme function of the pathway and induce further imbalances of the tryptophan/kynurenine metabolism.

MOOD FOOD COMPOUNDS SUPPRESS TRYPTOPHAN BREAKDOWN BY INDOLEAMINE 2,3-DIOXYGENASE (IDO) *IN VITRO*

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Mediterranean diet with high intake of fruit and vegetables and a healthy life style are considered to be associated with longevity and risk lowering for cardiovascular and neurodegenerative diseases. Also the intake of alcoholic beverages like red wine may contribute although the excessive intake of them can be associated with an increased risk of a number of cancer entities. In freshly isolated peripheral blood mononuclear cells (PBMC) in vitro, several compounds with antioxidant nature as well as extracts and dilutions of popular beverages like beer, wine and cacao and coffee have been observed to counteract inflammation and to suppress specific biochemical pathways like neopterin production and tryptophan breakdown mediated by indoleamine 2,3-dioxygenase (IDO) [1]. Similar results were obtained with alcohol-free beer and grape juice, as with pure antioxidant compounds like the stilbene resveratrol, the vitamins C and E, and other antioxidants. Results point to a role of the antioxidant food compounds to suppress the production of Th1-type cytokine interferon-g and thus Th1-type immunity.

Inflammation-associated breakdown of tryptophan was found to relate to mood lowering in mayn diseases, and the suppression of inflammation by such compounds may thus exert positive impact on neuropsychiatric symptoms like signs of depression but also cognitive impairment. However, by enhancing mood they may also increase the addiction risk. Moreover, the immunosuppressive influence of antioxidant compounds in beverages and food preservatives could increase the risk for malignant diseases and infections and support tumor progression. In addition, the selective inhibition of Th1-type immune response by antioxidant compounds may increase allergy risk and support weight gain [1,2].

In conclusion, antioxidant food compounds suppress the production of interferon-g and thereby diminish Th1-type immunity. This suppression may ameliorate chronic inflammatory clinical conditions such as cardiovascular diseases and may also improve inflammation-associated mood lowering. Consequently the intake of antioxidant compounds and supplements could enhance mood and improve signs of depression but may also increase the addiction risk of, e.g., alcoholic beverages.

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THE ROLE OF MAGNESIUM DEFICIENCY IN DEPRESSION

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Reduced daily intake of magnesium (Mg2+) is suggested to contribute to affective disorders, although causality and underlying mechanisms are difficult to prove in humans. Using validated behavioral tests, we could show that dietary-induced MgD indeed induces enhanced depression- and anxiety -like behaviour in different mouse strains, as well as in the rat, where we confirmed elevated aldosterone levels by MgD. Subsequently, we have been able to show that the MgD mouse model was sensitive to both anxiolytics and antidepressants. Specifically, diazepam and desipramine reduced the enhanced anxiety-like behavior while chronic desipramine and paroxetine, as well as acute ketamine treatment rescued the enhanced depression-like behavior. Functional mapping of neuronal activity using c-Fos as a marker revealed hyper-excitability in the central amygdala and PVN of MgD mice and its normalisation after antidepressant/antidepressive drug treatment. MgD caused altered expression of glutamate signalling and immune system/oxidative stress markers in the amygdala, as well as an increase in the transcription of the corticotropin releasing hormone in the paraventricular hypothalamic nucleus (PVN), and elevated ACTH plasma levels, pointing to an enhanced set-point of the HPA axis. Chronic treatment with desipramine reversed many of the identified abnormalities. Finally, treatment with high magnesium was able to rescue the enhanced prodepressive phenotype in a psychopathological mouse model of innate anxiety- and comorbid depression-like behavior.

Conclusions: Overall, the findings demonstrate that MgD increases depression- and anxiety-related behavior and induces activation changes in relevant brain areas. Dysregulations in the HPA axis, glutamate signalling and possibly activation of the immune system seem to contribute to the hyper-emotionality in response to dietary induced hypomagnesaemia

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NEUROPLASTICITY IN THE ADULT BRAIN: WHY IT'S SO IMPORTANT?

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Until recently, it was assumed that as we become older, the connections in our brain became fixed, and then it was just a matter of time that we started "losing" brain cells. However this assumption is being aggressively challenged by recent studies showing that the brain never stops changing.

One of the startling revelations of the 21st century is the improvement in our knowledge of nerve cell development among older adults. Known as neurogenesis or brain plasticity, this new knowledge is showing us that the brain has the ability to change throughout life by forming new connections between brain cells.

We are grateful to Vida Demarin, fellow of Croatian Academy of Science and Arts and INPC secretary general, for honouring us with her lecture about neuroplasticity in the adult brain at the opening of our symposium.

INTERFACE PROVIDERS AT A CELL LEVEL: THE STEM CELL REVOLUTION

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The word 'stem cell' has generally been used to describe a cell that can divide, give rise to more stem cells, and produce progeny that can then differentiate into mature cell types. Therapeutic strategies involving transplantation of stem cells focus on the replacement of lost or damaged cells (mainly neurons and oligodendrocytes), provision of trophic support for neurons, or manipulation of the environment within the damaged spinal cord to facilitate axon regeneration. Many different types of stem and progenitor cells have been transplanted into injured neural tissues, the main goal being to promote recovery. One of the world's top opinion leader in this field, Professor Michael Chopp, will offer to us new datas about this new revolutionary therapeutic field.

ILLUSION OF MOVEMENT AS AN INTERNAL INTERFACE MODEL FOR REHABILITATION

Béné R.

Vires Refotae, Sinappsa, Zagreb, Croatia

The illusion of movement seems to be the best way to rewire the part of the brain where the movement was encoded.The positions of our hands are specified by proprioceptive, kinesthetic, tactile, visual, and vestibular information. One way to „deceive“ the brain by inducing a conflict between proprioception and vision is to use a vertical mirror positioned sagittally in the middle of a box in which the patient places his paralyzed hand on one side of the mirror and the normal hand on the other. Then the patient looks in the mirror so that the mirror reflection of normal hand is superimposed on the image of the paralyzed hand. The conflict induced between vision and proprioceptive feedback seems to rewire the premotor cortex by activation of the right prefrontal cortex. Other ways are using combination of visual, proprioceptive and kinesthetic illusions, leading to greater activation of motoric parts of the cortex, and helping patients to perform a better movement simulation.

INTERFACES FOR AUGMENTATIVE AND ALTERNATIVE COMMUNICATION

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Eye blinking can be controlled by the brain not only reflexively, to protect the eyeball from injury, but also for the coordinating of saccades and eyeblinks to minimize the blanking or blurring of vision. Therefore, most blinks occur reflexively or spontaneously, and to some extent regularly. However, a blink can be done voluntary or intentional as well. Voluntary blinking can be the last way of communication in some diseases, such as in patients with locked-in sindrom. New technologies and creative software can allow us to improve this way of communication, using voluntary blink as a motor decision output.

ASSISTIVE TECHNOLOGY AND DAILY REHABILITATION CARE IN PULA

Delzotto I.

Dnevni centar za rehabilitaciju Veruda, Kabinet za asistivnu tehnologiju, Pula, Croatia

The first national highly specialised assistive technology centre for rehabilitation is actually few kilometers of the INPC congress centre, in Pula. Ines Delzotto, the person that established this Assistive technology center, is a member of Association for advancement of Assistive technology in Europe, and took part in various scientific projects putting great emphasis on cooperation with foreign institutions and professionals.

By founding the AT centre she respond to an educational, medical and rehabilitation need that was unmet so far in Croatia. AT encompasses all products and services able to compensate for functional limitations, facilitating independence and improving the quality of life of people with disabilities.The At centre provides its services for users, family members and professional caring by getting appointments for individual assessment and guidance.

BUILDING PARTNERSHIPS BETWEEN CLINICIANS AND FAMILY MEMBERS TO IMPROVE OUTCOMES FOR THE SERIOUSLY MENTALLY ILL

Brown B.D.

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At the conclusion of this workshop, participants will have learned:

1.The concept of a reciprocal interacting system in which the person with mental illness and his/her family members are mutually impacted by one another's affects and behaviors

2. How the patient's core deficits in information processing and stimulus overload renders him/her especially vulnerable to stressors, which can negatively impact the course of the illness. Interactions with family members can be a significant source of psychosocial stress.

3. The nature of the burdens that the relatives of a person with serious mental illness may experience. These include subjective burdens such as fear, anger, confusion, and grief and objective burdens such as financial problems, safety issues and social stigma. These burdens often lead to hostility, criticism and over involvement in interactions with the patient.

4. How family psychoeducation offers families information and support concerning:

a. The biological basis of mental illness and its treatment, including symptoms, course, and the action of medications and their side effects

b. Common reactions of family members to a mentally ill relative

c. The available system of care and how to access it

d. Relapse prevention and early warning signs

e. Safety issues and risk avoidance

f. Communication and problem solving skills in the family

5. How numerous research studies demonstrate that the use of intervention strategies of family psychoeducation dramatically improve the clinical course and outcome for patients

6. Specific knowledge, attitudes, and clinical skills clinicians will need for:

a. The establishment of a collaborative working partnership with patients, their family members and significant others in the patient's life

b. Providing psychodeducation and support

c. Offering direct clinical interventions to families when indicated

7.The administrative requirements and challenges of integrating services for families into hospital and community based clinical programs

The initial presentation will be followed by an interactive discussion with the group to offer the opportunity for attendees to share their experience, concerns and questions regarding the challenges of including families in their clinical work.

SUBARACHNOID HEMORRHAGE – THE NEUROLOGISTS VIEW

Gattringer T.

Medical University of Graz, Austria

Subarachnoid hemorrhage (SAH) is one of the most serious neurological emergencies, usually presents with an acute throbbing headache and is frequently caused by rupture of a cerebral aneurysm. However there are also other non-aneurysmal forms of SAH that have gained attention in recent years. SAH always warrants a specialized and rapid diagnostic workup, an early therapeutic management and a subsequent neurointensive care. The majority of SAH patients is primarily seen by neurologists, who mainly initiate first important steps and coordinate patient management in this complex disease.

In this talk the author will give an overview of epidemiological aspects, risk factors, different types and etiologies of SAH. The lecture further encompasses the diagnostic and conservative therapeutic SAH management in clinical practice with a special focus on neurocritical care aspects. Finally the aim is to introduce the following speakers and colleagues from Interventional Neuroradiology and Neurosurgery who will talk about special therapeutic aspects on SAH.

ENDOVASCULAR TREATMENT OF INTRACRANIAL ANEURYSMS

Klein G.E.

Medical University Graz, Austria

During the last twenty years emdovascular treatment has been accepted as a therapeutic alternative in the management of intracranial aneurysms, which are considered inoperable or pose a high surgical risk. Detachable balloons and non detachable microcoils have been used in the past, aneurysm rupture and coil migration have been observed as complications.With the adventof Guglielmi detachable coils (GDC) the indication for treatment of

intracranial aneurysms has been changed. The use of GDC allows a controlled and precised placement of these very soft platinum microcoils, enabling selective occlusion of saccular aneurysms.

The ISAT-study, a randomized prospective clinical study to compare surgery vs wmbolization, showed the benefit and risk reduction of the endovascular procedure.

With the invention of balloonexpandable and moreover selfexpandable microstents for intracranial vessels, the treatment of broadbased and fusiform aneurysm was also possible. By stent-assisted coilembolization nonruptured as well as acutely ruptured intracranial aneurysms can be treated. The most recent innovation was the invention of a so called "semicovered stent". With this stent it is possible to occlude an aneurysm only by reconstruction of the vessel wall and by minimizing the blood flow through the most narrowed meshes of the stent without the use of additional coils, so called "flow diverting " systems.

NEUROSURGICAL TREATMENT OF CEREBRAL ANEURYSMS

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Microsurgical clipping has been the treatment of choice for both ruptured and non ruptured cerebral aneurysms since decades.

In the last two decades endovascular modalities have become widely used to treat intracranial aneurysms and have displaced open surgical clipping in the background.

Most impressive studies on the outcome of the two treatments for intracranial aneurysms – open surgery or endovascular therapy – were the International Subarachnoid Aneurysm Trial (ISAT), which were presented in 2002 and 2005.

It suggested that the ruptured aneurysm treated endovascularly had a better one year outcome, but an increased risk of delayed rebleeding and recanalization compared with the aneurysm treated by open surgery.

In specialized centers up to 80% of aneurysms could be treated by endovascular approach.

However, beside all technical improvements in the management of intracranial aneurysms, occlusion of an aneurysm is often not the most difficult part of the therapy. In many cases the aneurysmal subarachnoid

hemorrhage (SAH) determines the outcome of patients due to the possible complications following the SAH.

In aneurysmal SAH primary complications are intracerebral hemorrhage and acute hydrocephalus, secondary complications are rebleeding, vasospasm, delayed cerebral ischemia, seizures and chronic hydrocephalus.

The timing of surgery has been the subject of controversy for more than forty years. Early surgery or coiling within 48 hours of admission is generally recommended in patients in grade Hunt and Hess I – III.

The goals of early surgical or endovascular treatment are to prevent rebleeding and to enable triple-H therapy for vasospasm prevention.

If patients have several hydrocephalus their neurological state will be reassessed after external ventricular drainage.

Patients in grades Hunt and Hess IV or V and evidence of expansive intracerebral hemorrhage early surgery is favored only in these cases.

Patients in grades Hunt and Hess IV or V, those with medical complications and those with giant or complexe aneurysms, delayed surgery or in some cases coiling is recommended.

The most critical time for surgery is the 7th intil 10th day and this period should be avoided.

With the introduction of modern diagnostic techniques, like CT – and MRI

Angiography, the number of unruptured aneurysms has markedly increased.

The following guidelines for surgery in unruptured aneurysms are generally accepted :

Aneurysms measuring less than 3 – 5 mm should be followed, aneurysms larger than 7mm should be treated – in the most cases by coiling.

Aneurysms with size between 5 – 7 mm should be considered for intervention, taking into the consideration the risk of microsurgery or coiling, the age of the patient and the characteristics and location of the aneurysm.

In a period of 10 years 535 aneurysms were microsurgically

treated in 482 patients at the Clinic of Neurosurgery Klagenfurt.

455 patients (85 %) suffered from a ruptured and 80 patients (15%) from an unruptured aneurysm.

Preoperatively 280 patients (58%)were in grade Hunt and Hess I and II,

120 (25%) in III, 48 (10%) in IV and 34 (7%) in V. All patients in grade V were under 50 years or associated with large intracerebral hematomas.

In a retrospective study we evaluated the outcome after 6 months, using the Glasgow Outcome Scale.

94% (263 of 280 patients) in grade HH I and II had a good recovery

(GOS V and IV) and only 11 patients (4%) had a severe disability

(GOS III), the mortality was 2% (6 patients).

86% (103 of 120 patients) in grade HH III had a good recovery

(GOS V and IV).

Fortunately, 17 of 48 patients (35%) in grade HH IV had a good recovery (GOS V and IV), but 42 (88%) of them were associated

With an intracerebral hematoma or acute hydrocephalus, which was the likely cause for high HH grading.

28 of 34 patients (84%) preoperatively in grade HH V died and no patient of this high grading group obtained better than GOS III.

Despite considerable advances in diagnostic, microsurgical, endovascular and anaesthetic techniques and perioperative management, the outcome for patients with aneurysmal SAH remains poor, with overall mortality rates of 25% and a significant high morbidity of the survivers.

The impact of early microsurgical and endovascular treatment was marginal in improving mortality, but for improving the quality of life early intervention was significant better.

The prognosis of patients who have suffered a aneurysmal SAH depends on several factors which include age, Hunt and Hess grade and location of the aneurysm. Generally the lower the clinical Hunt and Hess grade, the better the prognosis. Grade I and II generally are associated with favourable outcome; these patients are candidates for early surgery.

Grade IV and V carry poor prognosis; these patients need stabilization and improvement to grade III before surgery is undertaken.

ORGANISATION OF COMMUNITY PALLIATIVE CARE SERVICE IN THE COUNTY OF ISTRIA

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Organization of palliative care (PC) in countries where there is no clear national strategy for PC is a challenge for health care professionals and the community. Close cooperation between professionals, associations and the local authorities can overcome challenges and establish PC. In this paper we present the way of starting and establishing outpatient PC in Istria County.

Development of PC in Istria was passing through three periods: the pioneering period, the implementation period and the establishment of outpatient PC service. In the pioneering period were created conditions for professional palliative care. During 5 years was formed trained nucleus of volunteers. They organized lectures for health professionals and volunteers. Local population was informed about the need for PC through public media. Patients and families were assisted during the illness and grief. The implementation period started when the system was ready to accept a different type of care and provision of financial resources. Palliative care human resources have been able to provide outpatient palliative care. In the county of Istria approximately 2000 people die annually, about half of them at home. It is estimated that about 1500 patients and family members are in need for some aspect of PC. PC for so many patients is possible only in good collaboration with family doctors and mobile specialists palliative care team. The implementation period lasted one year.

Establishing of palliative care service is the third period started in 2012. Outpatient palliative care service is included in the primary health care services. The Mobile palliative care team is formed of oncologist and nurse, neurologist, surgeon, psychiatric, pharmacist, psychologist. Advisory centers and lending aid services are organized in major cities. Training about PC principles was conducted for doctors and district nurses. Education of social workers, clergy and volunteers are still ongoing.

Establishing a PC service is a huge challenge, but maintaining the model is perhaps a greater demand. This service is established with financial support of county government, great enthusiasm of health professionals, good cooperation with family doctors and nurses. The success of the organization of palliative services depends primarily of human resources. The legislation, good cooperation with government authorities and the support of the population allow further development of palliative care. Financing of the system should be clearly defined at the regional and national level.

MULTIDISCIPLINARY MOBILE PALLIATIVE CARE TEAM (ORGANISATION AND TASKS)

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Istrian Health Care Centre, Pula, Croatia

The short presentation is explaining the organization of our team, composed from 11 different specialists.

The team is working in the home of the patient but also in two small hospitals in the region. Some members of the team work as consultants in their field for dislocated surgeries.

A list of all the services the team is offering in the home of a palliative patient is listed as well as their numbers, that are steeply increasing

EMOTIONAL OUTCOME IN MOBILE PALLIATIVE CARE TEAM

Peharda T.

General hospital Pula, Croatia

The role of psychiatric influence is on three levels: working with patients and their families in a home setting, psychoeducaton of health workers and public, and third, embodying the matrix of palliative team through supervision.

The necessity of emotional investment becomes a crucial role for working in a team; sole working capacity becomes dysfunctional without that subtle support. Experience had shown that somatic doctors have problems recognizing and using their emotions in a communication. Until now, we have been working on issues such as: verbalizing feeling of loss, self gratification in spite of negative outcome, personal burnout and how to anticipate it, awareness of matrix team cohesion. Furthermore, we have learned how to share negative and unpleasant moments, recognize automatic thoughts and cognitive distortions, how to deal with physical and emotional losses, and how to express semantic „no" to myself. Finally, we have been learning how to cure and to be empathic instead of burn and exhaust personal emotions.

So, a psychiatrist with a psychotherapy education (cognitive - behavioral psychotherapy and psychoanalytic group psychotherapy) is an integral and essential part of a palliative team.

Psychiatrist maintains homeostasis on a vertical level (observes cohesion in team modeling the matrix) and on a horizontal level (as a skilled doctor in a team and in house) giving to mobile palliative team it wholeness and functionality, within itself and within health care net.

HOW TO INTEGRATE PSYCHOLOGICAL SUPPORT IN PALLIATIVE CARE IN CROATIA

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A World Health Organization statement describes palliative care as "an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual". While palliative care may seem to offer a broad range of services, the goals of palliative treatment are concrete. Palliative medicine is one of the best examples of person-centered medicine, which is evidenced by the principles of modern palliative medicine. National strategies of palliative care may vary, because they depend on the various factors and specificities of individual nations. The government of Croatia adopted a Strategic plan for palliative care in 2013, the efforts towards which lasted a few years and demanded great multiprofessional collaboration from over one hundred participants. One of the very important directives in this strategic document is psychological support as part od palliative care. Psychological/psychiatric aspects have an important place in all phases of palliative care, with an important role in research and education. In the everyday clinical practice of palliative care it is important to recognize individual strength and coping skills in the patient and their family, the personality structure of the patient and his/her level of distress. Therefore, it is necessary to identify vulnerable individuals through various psychological and social factors and use these factors as predictors of adequate or inadequate adjustment towards the disease. There are many roles that the psychiatrist/psychologist can perform in the assessment and treatment of patients, and psychological treatment can and should be individually tailored to meet the specific needs of the patient. There are several common psychiatric disorders that can be the focus of psychiatric treatment. These include depression, anxiety, adjustment disorders, sleep disorders, somatoform disorders, substance-related disorders, delirium and dementia. Psychiatrists must also deal with various issues ranging from suicidal ideations, lack of social support, personality disorders, grief, bereavement, spiritual issues etc. We must note that these disorders may arise in family members too. The goal of this presentation is to demonstrate the opportunities for and barriers to the creation of high-quality, accessible psychological support in palliative care in Croatia.

COMMUNICATION IN PALLIATIVE MEDICINE – THE ROLE OF CEPAMET

Đorđević V.

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Centre for Palliative Medicine, Medical Ethics and Communication Skills (CEPAMET) is founded on September 21, 2010 as semi-autonomous unit within the School of Medicine University of Zagreb. The conceptual framework of the centre is devoted to education, organization, and research in three domains: palliative medicine, ethics, and communication in medicine. The interdisciplinary team involved in the CEPAMET creation consists of experts in psychiatry and psychology, neurology, oncology, internal medicine and general practice. The Centre also has an advisory board, consisting of the most prominent international and national experts. The CEPAMET is the first institutionalized attempt to systematically include palliative medicine and communication skills into the system of medical education. The CEPAMET's main goal is to develop national educational strategy for palliative medicine for the members of the multiprofessional palliative care team at all levels of healthcare system (primary, secondary and tertiary). The CEPAMET provide an educational basis for palliative care and until now already put palliative medicine as obligatory subject in undergraduate and postgraduate medical curriculum at the School of medicine University of Zagreb. During last three years CEPAMET organized various postgraduate courses devoted to communication skills with patients with incurable diseases and three postgraduate course on pain and palliative medicine in the International University Centre in Dubrovnik. During 2013-2014 CEPAMET organized two postgraduate courses „Basics of Palliative Medicine" for the members of the multiprofessional palliative care teams. More than 200 professionals and volunteers from all Croatian counties participated at the 80-hours teaching program divided in eight modules (such as definition and organization of palliative medicine, evaluation, standards and norms, pain, symptom control, communication skills and psychosocial issues, palliative medicine for children and in the elderly etc.). Proper communication skills have often been neglected in medical education in Croatia at all, and we regognize it as very important part in our palliative care educational programs. The core of the medical profession has always been and will be the relationship between the health professional and the person seeking assistance. Several CEPAMET units are constructed as communication skills laboratories, where students and professionals have a chance to practice with real-life and simulated patients using video cameras and scales, such as Roter Interaction Analysis System our Person-Centered Medical interview. Only good communication can provide and establish good relationship between the health professional and patient, and the most important aspect of communication is medical interview, as a bridge from bench to bedside to community.

THE ROLE OF VOLUNTEERS IN PALLIATIVE CARE

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The League Against Cancer Pula, Croatia

This paper provides an overview of a voluntary work provided by palliative care volunteers of the League against cancer Pula. Volunteers are an integral part of the multidisciplinary palliative team. By investing their time and personal resources, volunteers make vast and valuable contribution in meeting unique and complex needs of palliative patients and their families in Istria.

League against cancer Pula has long and rich voluntary experience. Since 2005 League has been conducting basic education for palliative care volunteers with a number of participants rising every year. Volunteers are unselfishly providing help and support to people with narrowed social participation and difficulties in meeting daily life activities. Disabilities are a consequence of chronic diseases, such as cancer, dementia, neuromuscular disease, etc.

Volunteers invest their personal time, competences, work, and compassion in order to help people in their community to meet the complex needs resulted from life-limiting disease. Volunteer population in palliative care in Istria is consisted of general volunteers and those offering professional skills. The volunteers are involved in providing help and support to palliative patients in home setting, elderly people in nursing homes and patients undergoing chemotherapy regime in hospital. Voluntary activities include psychological support and counselling, organising medical equipments rent, cooperation with other associations and societies (for example Kennel club, muscular dystrophy society). Furthermore, volunteers make valuable contribution by raising public awareness of palliative care issues; by writing books, organising exhibitions and installations all in favour of palliative care community development. Observed problems in community and future challenges are: more efforts in public awareness raising, including attitudes towards providing and receiving voluntary support and help, availability of voluntary help earlier in a disease course, expanding the nature of provided volunteer activities.

Forming a volunteer defines special demands, including education, continuity and supervision. Volunteers are valuable part of community and their activities are vastly enriching the existing system. Despite certain obstacles, the availability and quality of provided voluntary help in our community is well-established. The community must recognise, appreciate and encourage voluntary activities as unique and precious contribution of an individual to the community.

ATRIAL FIBRILLATION AND STROKE

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Atrial fibrillation (AF) and its consequences are one of today's main epidemiologic concerns. 4.5 to 6 million Europeans and 2.3 to 5.1 million Americans are affected by AF which is the most common sustained arrhythmia in the general population. AF is the strongest risk factor for stroke but also increases the risk of heart failure, dementia and death. AF has a strong negative impact on patients' quality of life and causes large socioeconomic costs where more than half are related to complications of AF. The prevalence of AF is expected to increase by at least 50% within the next 20 years.AF is the cause of 15-20% of all ischemic strokes. It is also an independent risk factor for stroke severity, recurrence and post-stroke mortality. New onset AF is an independent predictor of in-hospital mortality, longer intensive care unit stay, and longer overall hospital stay.

AF should be considered when assessing cryptogenic strokes, which account for approximately one third of first ever ischemic strokes. It is possible that 25-50% of cryptogenic strokes may be due to undetected AF. Asymptomatic AF can also cause cryptogenic transient ischemic attacks (TIA). Following prolonged monitoring of asymptomatic patients, 85% of AF episodes lasted less than 30 seconds. A magnetic resonance (MR) study performed on more than 2000 asymptomatic AF patients found that 10.7% of participants had at least one silent cerebral infarction (SCI). Silent or asymptomatic strokes are valuable predictors for clinical strokes and dementia. It has, however, to date not been shown that screening for and the appropriate treatment of AF reduce the number of patients in the population with SCI.

The new oral anticoagulants have been shown to be as good as or better than VKAs for stroke prevention in AF. This is accomplished with a lower risk for bleeding, especially intracranial hemorrhage. The new anticoagulants have also several additional advantages such as fewer interactions with other drugs and food and no need for monitoring. This will hopefully in the future lead to a decrease in the number of patients who suffer ischemic stroke due to atrial fibrillation.

WARFARIN: GOLD STANDARD OF ANTICOAGULANT THERAPY

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Antithrombotic therapy is recommended for ischemic stroke prevention. Anticoagulants are most commonly used as a long-term oral therapy in patients with atrial fibrillation or other cardiac condition with a high risk of embolism. Since 1950s oral anticoagulant therapy with vitamin K antagonists (warfarin) was introduced into clinical practice, and it is has been a gold standard for secondary prevention of ischemic stroke. In the last few years its role in stroke prevention in patients with non-valvular atrial fibrillation has been weakened because of development and presence of novel oral anticoagulants (direct thrombin inhibitors and direct inhibitors of factor Xa). However, warfarin has still a leading role in stroke prevention and treatment in patients with valvular atrial fibrillation, atrial fibrillation and severe renal impairment, acute myocardial infarction with mural thrombus, cerebral venous thrombosis and acquired or inherited hypercoagulability states. The advantages, disadvantages and other indications for treatment with warfarin will be discussed.

DIFFERENCES AMONG NOVEL ORAL ANTICOAGULANTS

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Novel oral anticoagulants (NOACs) that are available for the prevention of stroke in patients with AF include dabigatran, rivaroxaban, and apixaban. While dabigatran acts as a direct thrombin inhibitor, rivaroxaban and apixaban work as direct inhibitors of factor Xa. In spite of different site of action, all novel OACs have been shown to be noninferior or superior to dose-adjusted vitamin K antagonist (VKA)therapy. Additionally, compared with warfarin treatment, all these drugs have shown to reduce the risk of intracerebral haemorrhage.

Apart from different pharmacodynamics, there are some pharmacokinetic differences among NOACs that may be clinically relevant. Some of these differences are related to: bioavailability, protein binding, drug half-life time, cytochrome P450 metabolism, P-glycoprotein transport, degree of renal clearance. These pharmacokinetic properties may be important in selecting the drug for a single patient with his/her comorbidities and comedication. However, except the mentioned pharmacologic differences, in finding the most appropriate medication for a single patient, mostly important are the conclusions drawn from the randomized clinical trials with NOACS, which are summarized in the guidelines from eminent professional societies. By comparing clinical guidelines, it can be seen that are no great differences in overall rating of NOACs, but anyway many important clinical questions stay unresolved. In the absence of head-to-head comparisons, it is difficult to provide definitive recommendations on which NOAC should be used in which patients. This is why the selection of NOACs should be individualized on the basis of estimated stroke and hemorrhage risk, patient clinical characteristics, potential drug interactions, patient preference and physician's clinical judgment.

ASSESSING THE CAPACITY TO PROVIDE A CREDIBLE TESTIMONY IN CHILDREN VICTIMS OF CRIME

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Expert witnesses often face the following question: when children are victims of a crime, do they have the capacity to provide a veracious testimony, is their testimony under the influence of others, in other words, can they be credible witnesses? The Court assesses and decides on the veracity of the testimony. However, it is up to the expert witnesses to determine the child`s level of functioning, memory capacity, capability of evoking recollections, the ability to verbally express their experiences and their standard modality of communication, as well as the child`s style of coping with stressful experiences. It is important to assess the social environment of the child, the nature of the child`s relationship with the offender and the offender`s influence on the child, as well as the influence of the child`s culture and environment. The person who evaluates the child`s capacity should be specially trained in working with children, conducting a child friendly forensic interview, and, above all, take into account and minimize the possible retraumatization that arises from the process of questioning itself. It is important to consider the environment and the manner of questioning, and the possibility that the child has been additionally traumatized by the number of conducted interviews.

Prior to the questioning it is necessary to gather as much information as possible about the child in general, the suspected abuse, the process of disclosure etc.

Building rapport is essential in conducting the interview, and requires specific skills of the expert witness.

Forensic evaluations are conducted according to a number of guidelines and using different scales, of which experts value in different, often conflicting ways. However, it is clear that it is very important to analyze general and specific characteristics of the statement, special features of the content, a child`s motivation, as well as content regarding the crime itself. A frequently raised question regards the suggestibility of the child. Namely, is the statement provided under the influence of the child`s social environment, or have the questions of the expert witness been suggestive, especially if we take into account the potential influence of his position.

It is important to emphasize the necessity of education of the expert witness in conducting the forensic interview with a child. The task of the expert witness includes providing assistance to the Court in credibility assessment, through, using analysis and assessment of the child`s abilities and the content of the child`s testimony, but, above all, taking into account that the questioning itself should not lead to additional traumatization.

PERSONALITY DISORDERS IN FORENSIC PSYCHIATRY

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Personality disorder is a long-lasting model of inner experience and behavior that markedly deviates from the expected, due to the cultural affiliation of the person; it is pervasive and inflexible, starts in adolescence or early adulthood, is stable over time, and leads to interference or impairment. According to DSM-IV classification, personality disorders are classified in three groups. People from group A (paranoid, schizoid and schizotypal) are unusual and eccentric; people from group B (antisocial, borderline, histrionic and narcissistic) are dramatic, emotional or unstable, and people from the group C (avoiding, addictive and obsessive-compulsive) are anxious and filled with fear. Personality disorders from all three groups can be of interest to forensic psychiatry. Detailed knowledge of each subgroup, their sensitivity and vulnerability with comorbidity and constellation form the details of a forensic case. Forensic case today is seen as a result of the cumulative effect of several different factors that work synergistically over a longer or shorter period of time and result in a criminal act.

Forensic case which is directly linked to the abuse of psychoactive substances must be seen as a consequence of acute or chronic toxic effects of alcohol and/or drugs on the brain which is a direct cause of violent behavior that results in perpetration of serious criminal offenses. Also, the association of personality disorders, drug and alcohol abuse and crime is present in over 80% of cases. Assessment of behavior and predictable behavior in personality disorders are important predictive factors for assessing the international violence risk assessment scale (HCR-20) among offenders with element of severe violence. Personality disorders in the world are mainly treated in the penal system, even those that require medical experts – only those with endogenous psychoses and mental retardation are treated in the hospital system. In our conditions, about 20% still ends up in the treatment of forensic psychiatric institutions, which requires further discussion and research in the use of criteria of insanity, as well as the criteria for diagnostic evaluation.

CAPACITY TO TESTIFY – DIMENSIONAL APPROACH?

Šendula Jengić V., Bošković G.

Witnesses are important evidence. They are often the only and the most reliable source of information about important facts in that they allow the court to gain a general and concrete insight into the particular event through conversation with the witness, asking questions, confrontation, while they are under oath and describing their perceptions about the behavior, appearance, mood, emotions, statements of individual participants in the event, etc.

However, in obtaining this personal evidence one should take into account that it may be burdened with a variety of subjective shortcomings and errors that can seriously jeopardize the quality of obtained information, but also with some objective facts.

According to legal requirements the witness provides information only about the facts, but not about the rules of experience or legal rules. The facts which the witness reports were, in general, formed and existed in the past. However, the witness can also provide information about the facts that exist at present if their knowledge about them is based on their sensory perceptions. Very often the witness combines his memory of the facts of the past with the facts that exist at present. Most often the witness is requested to provide information on specific observations, relating their specific perceptions of the facts with which they came in direct sensory contact, e.g. to provide information about the event which they personally attended.

The term 'capacity' in this context refers generally to a person who is able to perceive and remember what they saw in the past, and who is able to recall the observations and report about them. A person lacking any one of these three skills would not be able to give information about the facts in question and would not be able to testify.

Human cognitive functions - perception, memory, recall, etc. that underlie the ability of giving testimony, are not dichotomous but continuous variables by which people differ to the same extent as by body height, weight, eye color, etc. The court is left to evaluate the individual ability of the witnesses on a case-to-case basis, and how it reflects on the probative value of their testimony. Only a person entirely lacking at least one of the above mentioned capabilities would be disqualified from testifying. However, there remains the question of modes and methodologies of assessment of witnesses' specific abilities by the court and the distinguishing characteristics as well as the reliability of testimony in e.g. people with significantly below average compared to those with above average abilities of perception, memory, recall and recount.

INTRUSIVE BEHAVIOR (STALKING) – A NEW CHALLENGE IN THE FORENSIC FIELD?

Bošković G., Šendula Jengić V.

With the adoption of the new penal code in Croatia intrusive behavior or stalking has been criminalized for the first time in the chapter on crimes against personal liberty.

In all the 50 USA states there are explicit laws on stalking, and at the federal level the crime of stalking was included in the criminal legislation in 1996. In some EU countries, stalking is also considered a criminal offense (probably depending on the assessment of social risk and potential social damage) and the custodial sentences range from several months to several years.

Legal definitions of stalking vary considerably, but generally have three elements: (1) behavioral pattern (course of action) of intrusion on another person, which is unwanted; (2) implicit or explicit threat; (3) fear or fright at the threat that the person is experiencing as a result of unwanted intrusive behavior. In other words, a person who willfully and repeatedly follows, harasses, abuses, or otherwise interferes with another person, and who presents a credible direct or indirect threat with the intent to intimidate that person, either by fear of death or serious injury can, in principle, be charged with the offense of intrusive behavior or stalking.

Clinical aspects of the definitions also vary considerably, but have a tendency of operationalization and are more measurable than the legal definitions. Some authors use the term "obsessive following" as a clinical guideline considered necessary in the search of any diagnostic entity. Thus stalking is defined as abnormal, long-term pattern of threat or harassment directed towards a specific individual, or as a pattern of an open search for the victim.

The stalkers target public persons or celebrities, children, and sometimes even complete strangers. In almost all cases they already have or are in the process of establishing psychological relationship with the victim.

Although epidemiological studies of stalking are relatively rare the findings suggest that stalking carries a significant danger of death for both women (who are the majority of victims) and men (who are mainly the perpetrators).

Studies that have dealt with the psychopathological characteristics of perpetrators showed some significant characteristics of both clinical Axis I and Axis II. Stalking occurs in different contexts, so it is possible to talk about stalking in public places, workplaces, family space, personal space, cyberspace, etc. where the very pattern of stalking also shows significant behavioral variability. This paper discusses the above mentioned aspects of stalking or intrusive behavior.

THE PHENOMENON OF VIOLENCE IN FORENSIC PSYCHIATRY

Šendula Jengić V., Bošković B., Ljubičić R.

Violence has always been an inherent human experience. Its devastating impact can be seen in various forms in all parts of the world. Increase in violence in general population is a social and public health problem.

Some causes of violence are evident while some are deeply rooted in social, cultural and economic fabric of human life. Research shows that there are biological and other pre-disposing factors for violence which in specific interaction with family, community, socio-cultural and other external conditions may create a situation in which violence is very likely to happen.

Law and legal norms are the foundation of justice in social relations. Legal rules exist where there is a possible choice of human behavior and where it is necessary to regulate the behavior in the way that specific behavior is allowed or prohibited or restricted. Violence does not necessarily lead to injury or death, but nevertheless represents a significant burden for the individual, the family, the community, the health, social and economic systems worldwide.

Through fundamental and other applicable laws the state legislation defines the norms of human behavior in the way that it cannot in any way constitute a threat to other people, living beings or things. Unlike many forms of social control that is exercised through the family, school, church or other non-legal ways, criminal law, as part of the legal order, achieves its mission by state coercion or punishment. The area of forensic psychiatry has a twofold role being a specific part of the psychiatric profession, but also a collaborating field of the justice system. At that, the definition of the phenomenon of violence is qualified and quantified so as to be measurable by legal norms.

Violent behavior can be caused by or result in mental illness, temporary or permanent mental disturbance. There are various studies on the connection of these phenomena. Forensic psychiatrists are often encountered with the issues of violence when it has resulted in an adverse event. Although in public their role is more often associated with criminal proceedings, the area of treatment of the mentally ill perpetrators of criminal offenses and misdemeanors is often in the shadow of the spectacular and frightening events and judicial proceedings, and represents a lengthy and complex work of teams of professionals with violent offenders, victims, families, etc.

FORENSIC PSYCHIATRY IN SLOVENIA: CLINICAL, LEGAL AND ETHICAL ISSUES

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In June 2012 a Forensic Psychiatric Unit was set up within the Department of Psychiatry, University Clinical Center Maribor. This is the first and the only Forensic Psychiatric Unit in Slovenia.

Since the establishment of the Forensic unit, psychiatrists and other professionals are faced with many clinical, legal and ethical problems, which are presented in this lecture.

During the period from June 2012 to April 2014, 173 patients were hospitalized and treated at our Forensic Psychiatric Unit. Since the opening of the Forensic Unit, we are facing with a lack of psychiatric and other medical staff.

The main problem is over-occupancy of the Forensic Unit. Bed occupancy levels often exceed 100%. Currently 45 patients are hospitalized on the capacity of 30 beds. The majority of them, 37 patients have a security measure of compulsory psychiatric treatment under the Criminal Code of Slovenia, which can last for 5 years. 8 patients are prisoners, who have mental disorder. Slovenian courts often impose compulsory psychiatric treatment to persons who had committed a criminal offense and had a personality disorder or a psychoactive substances use disorder without any other mental disorder. Occasionally also mental retardation is the main diagnosis in patients with a measure of compulsory psychiatric treatment. It is known, that such mental disorders are not treatable or at least can not be treated with repressive measures.

Another problem is improper legislation regulating the compulsory admission (under the Criminal Code) of psychiatric patients to hospital. Forensic psychiatric field is not adequately regulated and Slovenian laws are deficient. We do not have outpatient forensic treatment and after release from hospital, those patients do not have appropriate monitoring or treatment.

Acute forensic psychiatry inpatient units differ from mainstream units by the maintenance of security that is necessary to contain patients who have a history of offending behavior or a heightened risk potential. It is expected to be safe, supportive and therapeutic places, which is impossible in our situation. Current provision of acute beds remains insufficient to meet our service demand. The risk for violent incidents is increased with over-occupancy of the Forensic Unit. A big problem is also appropriate preparation for patient discharge, because of non existence of outpatient forensic treatment.

IMPLEMENTATION OF TELESTROKE NETWORK IN SLOVENIA

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A telestroke network is an effective way to extend quality acute stroke care to remote hospitals and to improve patient outcomes. It has grown remarkably in the past decade and has entered mainstream care for patients with acute stroke worldwide. The European Stroke Organization and the American Heart Association/American Stroke Association have both issued guidelines encouraging the formation of telestroke networks and development of teleconsultation services. Telestroke enables patients suffering acute stroke to be remotely evaluated, thereby allowing optimal treatment and management even in clinically underserved areas and removing geographical disparities in access to expert care.

Slovenia is predominantly rural region covering 720.273 km² and a population of 2 million, and approximately 4.400 stroke patients, annually. Prior to the beginning for telemedicine, there were 4 regional centers providing thrombolysis 7 days a week, 24 hours a day. Projected ambulance travel time was more than 60 minutes from peripheral centers to either one of these 4 regional centers. This motivated horizontal organization of the program, which will be rolled out following successful completion of a pilot project between April and June 2014.

Our system is based on video examination and evaluations of brain scans via teleradiology. Teleradiology using electronically transmitted original imaging data is potentially equivalent to onsite assessment. Through telemedicine consultation including video examination and teleradiology we intend to improve accuracy of acute stroke treatment decisions in our county. Telemedicine will be used to extend the benefits of intravenous thrombolysis to patients in nonspecialized hospitals. Keeping services local will has particular advantages in relatively large rural landscapes by minimizing dependence on regional transport services and developing rehabilitation and follow-up care for patients closer to where they live.

Beyond thrombolysis, we expect from telemedicine also benefit for immediate decision making in acute stroke, e.g. for triage of patients who might benefit from interventional treatments not available at the referring hospital. However, improved clinical outcomes of stroke patients will not be the only objective of our project. Telemedicine will be also used for secondary prevention, rehabilitation, education and long-term stroke care.

NEUROREHABILITATION FOR BETTER LIFESTYLE

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The Austrian Rehabilitation concept is carried out according a so called "Phasemodel". Divided into 5 Phases (A – E) patients are treated in respect to time course and the individual patient's needs. Phases A – C are provided during the acute phase and are therefore applied in acute hospitals and stroke units or in rehabilitation departments with special equipment. The latter is needed in case of Neurorehabilitation Phase B were patients are involved who still have a high risk of deterioration including the possible necessity of treatment in intensive care units.

The evaluation of the patient's progress is done by scales and scores, rehabilitation goals are developed together with the patient in respect to his or her special needs. To decrease dependency and improve quality of life are the general goals.

Goal setting and treatment planning is crucial in neurorehabilitation. Working on communication, motility, self care or domestic life are important parts. Understanding of quality in neurorehabilitation changed during the centuries. E.g. in the 1970's there was a focus on exercise and practise, in the 2000's the special needs of the individual is crucial leading to a diversified rehabilitation program. Improvements of functions are sought through application of multiple components rather than by applying a single component task. In addition treatment interventions by pharmaceuticals can be added like the use of Botulinum Toxin in various indications. All this needs specially educated staff and a standardised minimum number of staff available. In education Austria developed a curriculum in neurorehabilitation and is currently in the first evaluation phase of the pros and cons. Additional crucial points like fall prevention or complication rates are further important issues.

The key factors for success in the Austrian point of view are: goal setting in agreement with the patient (relatives), inter- and transdisciplinary teamwork, involvement of patient and caregiver in the discharge process and structured high level staff training.

COMPLEMENTARY THERAPY OF MULTIPLE SCLEROSIS

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Patients with multiple sclerosis should eat only organically grown, fresh food without additives, eat plenty of fresh fruits and vegetables seasoned with high-quality cold-pressed oils.

Saturated fats should be avoided in the diet, which means avoid fatty meat, whole milk and cheese, mayonnaise and all foods that contain saturated fats.

The pioneer in the treatment of multiple sclerosis by food and vitamins doctor Swank (Swank Multiple Sclerosis Center in Beaverton, Oregon) has managed to prove that a particular diet shows good results when compared with the usual or conventional diet, and that the survival rate is much higher.

Cold-pressed vegetable oils and fish oils from cold seas are very important for quality development of nervous tissue and hormonal balance. Melatonin and valerian are useful for the treatment of insomnia.

Patients with MS receives antioxidant components trough regular intake of fruits (2-4 times daily) and vegetables (3-5 times daily). If people with MS are taking antioxidants, it is better not to take high doses for a long time or larger number of different antioxidants: qoenzim Q and vitamin C.

Oral cannabinoids and marijuana smoking can relieve some MS symptoms including spasticity and pain. Controlled studies confirmed the effect of cannabis on spasticity in MS. It can provide a variety of side effects such as sedation, difficulties in driving, and if is smoked, cancer and respiratory diseases.

Sage, celery, chamomile has sedative properties. Nettle, cranberries, bay leaf and vitamin C are useful for urinary infections. Senna and magnesium are effective for constipation treatment. Previous clinical studies do not indicate that vitamin D reduces disease activity when evaluated on the basis of seizures rates or MRI findings.

For zinc there are no strong evidences to support its use. If people with MS using zinc it is best to take 10-15 mg daily. If they use higher doses it is necessary to add copper to avoid its deficit. Vitamin B1 is used for fatigue, from migraine - B12, B6 has a mild immunosuppressive effect, and for vitamin B12 there is no clear evidence of favorable effect,

Evidence for a causal role for vitamin D in multiple sclerosis (MS) is being gathered. Epidemiological, molecular and animal model studies have paved the way in our understanding of the effects of vitamin D in demyelinating disease. Several clinical trials have been completed and more are under way to understand the full extent and value of vitamin D supplementation on disease progression. Many questions remain unanswered however and careful study design is increasingly pertinent. Timing of exposure, dosage and transgenerational effects are some of the several important questions that need to be addressed. In this issue, Carlson and Rose highlight these points and provide a review of vitamin D and MS with an emphasis on the most recent clinical studies. Further evidence of vitamin D deficiency as a causal factor, its molecular targets in MS and its prospect as a therapeutic and preventative agent are questions that warrant further study. For a patient with MS it is necessary to take into the body daily at least two liters of high quality purified water. It is not advisable to drink alcohol, chocolate, coffee, dairy products, fried foods, spicy foods, meat, barley, rye, oats, wheat, white sugar, and processed, frozen or canned foods. Eat fiber-rich foods, such as fruits and vegetables, because good and rapid digestion ensures lower the absorption of harmful substances from the digestive system.

HOW WE DO TREAT REFRACTORY MIGRAINE

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Some patients with migraine remain refractory to treatment, despite optimal abortive and preventive treatment. This subgroup of migraine patients suffers significant disability and impaired quality of life. Neurologists define such patients as a refractory migraine (RM). However, operational definition for RM is still challenging. The definition established by Refractory Headache Special Interest Section (RHSIS) includes optimizing comorbid conditions, addressing triggers and lifestyle factors, and failing an adequate trial of both preventive and abortive medications (1). In the headache clinic classified using the criteria proposed by the RHSIS found that 5.1% of the patients evaluated had RM, with a mean age of 43, 58% and 46.4% were female. Thirty-six percent of the refractory patients had medication overuse headaches (MOH) (2). Exact pathophysiology of RM is unclear. Evidence suggests that there is a deficiency of inhibition or increased facilitation of migraine pain leading to impaired modulation, cortical hyperexcitability and structural changes (3). The clinical studies demonstrates that early life stress results in long-term changes in the sympathetic nervous system and hypothalamo-pituitary-adrenocortical axis, the principal pathways that respond to stress, and are also important in migraine. When treating RM, we should always begin with the basics including comorbid conditions for example mood disorders, medication overuse headaches and sleep disorders. Patients with personality disorders are particularly challenging. Pharmacological treatment the abortive as well as preventive agents should be based on evidence-based guidelines. Interventional procedures include local procedures such as peripheral nerve blocks, botulinum toxin injections, nerve stimulations as well as migraine surgery. In adjunct treatments the patient "wellness" should be emphasized. Relaxation technics such as biofeedback and cognitive–behavioral therapy (CBT) are reasonable treatment options for migraine prevention. Keeping a headache calendar is in essential for optimal migraine management. We must discuss with patients about reasonable goals and expectations. A realistic goal is to decrease disability and improve quality of life. Patient education is very important. Those who were supplied with education materials reported improvement in their headache frequency, as well as the cognitive and emotional aspect.

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HOW DO WE TREAT MULTIPLE SCLEROSIS

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Multiple sclerosis (MS) is a chronic demyelinating neurological disorder that mainly affects young individuals and approximately 85% of patients experience an initial course with relapses and remissions (relapsing-remitting multiple sclerosis). Management of MS is founded on evidence based medicine and focused on three main areas: the diagnosis of MS; treatment of relapses; and long-term preventive treatment including clinical follow up, dose adjustment, drug switch, control of therapeutic efficacy, and disease progression. Diagnosis should be established according to clinical and paraclinical criteria, but differential diagnoses must be taken into account when making the diagnosis of MS. Discussion on therapeutic recommendations is focused on the disease-modifying agents in acute phases and drugs for long-term treatment and symptomatic treatment. Treatment of relapses as well as long term treatment should be planned according to the results of clinical trials and evidence based medicine. The main goals in the treatment of MS patients should be: improving the speed of recovery from attacks (acute treatment, mostly with steroid drugs); reducing the number of attacks or the number of MRI lesions, and attempting to slow progression of the disease with disease modifying drugs-DMDs.

THE ROLE OF EXERCISE THERAPY FOR PSYCHIATRIC CONDITIONS

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There is mounting evidence for a positive relationship between participation in regular exercise and various indices of mental health. Thus, a number of studies have demonstrated a positive relationship between exercise and mental health in people with alcohol addiction, people with schizophrenia and those with clinical depression. There are many hypothesized mechanisms by which exercise might influence mental health. It is difficult to pinpoint any single mechanism that is likely to account adequately for the exercise and mental health relationship until further research specifically addresses each proposed explanation. Evidence for the benefit of exercise therapy for several psychiatric conditions will be shown and discussed during the talk. Specifically, we will address eating disorders, depression, schizophrenia and dementia. After reviewing the literature we will discuss the implementation of exercise therapy in everyday clinical life. The talk will further discuss strategies to motivate patients to continue with exercising after release from hospital.

NONVERBAL BEHAVIOUR IN PSYCHOPATHOLOGY: WHY WE NEED TO REVIVE THE INTERPERSONAL DIMENSION IN CLINICAL PSYCHIATRY

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Current conceptualisations of psychiatric conditions suggest that many disorders are characterised by interpersonal dysfunction. Interpersonal communication relies much more on nonverbal signals than verbal report, and these typically nonconscious interpersonal behaviours are considered to yield more veridical information about a patient's mentality than verbal reports. That said, it is quite surprising to note that the number of studies addressing interpersonal communication on the basis of verbal report by far exceed the number of studies focusing on nonverbal behaviour.

In recent years, a few studies have started to examine nonverbal communication of patients with psychiatric disorders using ethological methodology. In essence, these studies focus on the expression of emotions, gestures and body posture of patients with different psychiatric disorders during interaction with therapists or in other setting. It is assumed that distinct behavioural elements share a common causal factor and serve a common (biological) function. For example, eye contact associated with a swift lift of the eyebrows typically invites social interaction. In contrast, a crouching body posture signals withdrawal or defeat. Along these lines, it has been shown that patients with depression or schizophrenia can be distinguished from non-patients based on their nonverbal behaviour. Moreover, nonverbal behaviour during the first interview has predictive value for outcome and risk of relapse. Another approach has utilized oxytocin, known as a "prosocially" acting substance, to examine the nonverbal behaviour of patients with borderline personality disorder.

The present talk aims to give examples of ethological studies in psychiatry, and seeks to emphasise the potential therapeutic insights derived from this approach.

EVOLUTIONARY ASPECTS OF NEUROLOGICAL SOFT SIGNS

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Neurological soft signs (NSS) refer to subtle neurological abnormalities comprising deficits in sensory integration, motor coordination, and sequencing of complex motor acts. It is generally accepted that NSS are more prevalent in schizophrenia patients including first-episode cases compared to healthy subjects. Moreover, NSS have been consistently demonstrated in neuroleptic-naïve first-episode patients prior to medication exposure, thus they are thought to be an intrinsic feature of schizophrenia. This notion is underlined by the increased NSS scores in high-risk subjects, such as relatives of schizophrenic patients, or in the unaffected co-twins of monozygotic twin-pairs discordant for schizophrenia. However, recent studies clearly demonstrate that NSS are not a static feature of the disease but vary in the clinical course of the disorder. This variation with psychopathological symptoms was first established in the short term course with remission of acute symptoms under neuroleptic treatment but also applied for the long-term course over follow-up periods of up to 5 years. That this effect is heralds a better prognosis will be discussed on basis of a metaanalysis. Along with this the hypothesis that NSS are just a consequence of early neurodevelopmental insults will be discussed with reference to clinical and neuroimaging studies.

NSS in general and their variability in particular may represent the "process activity" (Huber). At the same time, NSS can be also interpreted as an expression of the genetic liability towards the disease – Meehl´s "schizotaxia" - where among others dysdiadochokinesia constitutes a trait-like marker of a baseline defect ("hypokrisia"). The potential interactions between state and trait related aspects of NSS will be discussed with respect to their clinical importance.

THE SEXUAL-EXCRETORY (MAL?)-CONSTRUCTED ORGAN – AN INBORN SOURCE OF PSYCHODYNAMIC CONFLICT

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From evolutionary development mammals came up with an overlapping anatomy of the sexual and the urinary excretory functions, [dual in male, triple in female (including the birth channel)], and in addition a surprising neighborhood in close vicinity, the anus, terminating the excretory pathways of the gut. This convolute is here assigned the sexual-excretory (mal?)-constructed organ (SMCO). The anatomical situation is surprising as the sexual urinary organ (except the vagina in females) is sterile under normal conditions, whereas the anus unsterile, the latter representing a potential source of dangerous infections for the former. An apparent problem is to keep in check this situation continuously by hygienical behavior, which is established during learning phases in early childhood, mainly the anal phase.

From theoretical considerations a new concept is introduced.

Only recently it was understood that the microbiome, predominantly located in the gut, outreaches the number of cells of the human body by minimum 10 fold, and interacts in a constant battle between the microbiome and the immune system and is important to shaping immune responses in health and disease, being relevant for systemic and CNS immune inflammatory disorders.

The anal phase was in psychology, psychiatry and especially in psychoanalysis for long considered important not only for establishing hygienical behavior, but in addition for basic aspects of personality development, representing a time period between two and three years after birth. The anal phase is traditionally associated with obsessive-compulsory behavior and respective symptoms also later in life. Here the idea is introduced that the anatomical situation of the SMCO may in addition represent a continuous source of psychodynamic conflict over life time, because of a daily renewed awareness of an ugly and dirty anatomical a priori situation, which may have a broader meaning and play a more general role for psychical life in psychodynamic terms. It is hypothesized that the unvoidable daily repeated experience of this ugly – dirty-disgusting SMCO requires active repression and be conscious taboo. Such can be highlighted for example by wide neglect of the theme in advertisement or in movies. In a transcendental perspective the SMCO situation may be relevant to understand for example the known association between aggressive behavior and sexuality, or mortality related fears, or in counterreactive sense, such aspects like idealization of beauty and strive for immortality.

Evolutionary history of SMCO poses a constant source of (pre-)conscious psychodynamic conflict with possible far reaching importance.

POSTERS NEUROLOGY

1. RELATIONSHIP BETWEEN ESTIMATED PRE-MORBID IQ AND NEUROPSYCHOLOGICAL MEASURES OF BRAIN INJURED INDIVIDUALS IN AN ACUTE REHAB SETTING

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Cognitive reserve theories have been used in an attempt to explain differences in performance and outcome after neurological injury or illness. Theories sugest that higher education and IQ scores may preserve functional abilities after acquired brain injury. Greater cognitive reserve may buffer the effects of injury, regardless of severity. The Wechsler Test of Adult Reading (WTAR) has been utilized to provide a measure of intellectual functioning prior to the onset of illness, injury, or disease. The objective of this study was to analyze IQ scores of brain injured individuals obtained on admission to acute rehab and evaluate if they correlate to scores on brief neuropsychological measures.

A retrospective cohort analysis of brain injured patients admitted to an acute rehabilitation brain injury program and were administered the WTAR during the initial neuropsychological evaluation on admission. Testing was conducted within 3 days of admission. Patients were also adminstered the Montreal Cognitive Assessment (MOCA) and Mini Mental Status Examination-2 Expanded Version. Multivariate analysis was used to determine if individuals with higher IQ scores also had higher scores on the MOCA and MMSE-2EV. An analysis was also conducted to determine if a higher WTAR IQ correlated to MOCA gain on discharge.

A database of 1378 patients who were discharged between January 3, 2012 and May 25, 2013 was examined. Of these patients, 760 were given the MMSE-2EV on admission; 327 were given the MOCA; and 82 had an initial WTAR. 158 patients had both initial and dischage MOCA. Patients with higher WTAR IQ scores correlated with higher scores on both intial MOCA ($r=.498$, $p<0.01$) and initial MMSE-2EV ($r=529$, $p<0.01$). There was no significance in MOCA gain from initial to discharge ($r=-.272$).

Pre-morbid estimated IQ appears to be good predictor of outcome on neuropsychological measures and appears to back up the theory of cognitive reserve. This may help understand functional outcome and return to a better quality of life

2. MODELING OF RTMS IN EPILEPTIC BRAIN

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Transcranial magnetic stimulation (TMS) is a method with antidepressant and anticonvulsive characteristics what can apply in epileptic patients. The aim of our study was to calculate the TMS induced currents into the brain model.

We used the Finite elements model with the some components (air, coil, scull bone, cerebrospinal fluid, gray and white brain matter) to estimate of distribution of TMS induced electromagnetic fields and currents in 3D brain modeling. We calculated the parameters of electric and pulsed magnetic fields (PMF) and TMS induced currents (magnetic field induction (MFI), induced currents density (ICD)) by COMSOL Multiphysics for circular (CC) and eight-shape (ESC) types of TMS coils.

In the normal brain model ESC PMF gives a least induction and best focusing in the grey matter (max MFI and ICD are 0.2T and 40.0 A/m2 accordingly); the greatest depth and area of force has a large CC (max MFI and ICD are 0.8T and 84.0 A/m2 accordingly). All types of coils applied over epileptic zone produces more considerable currents than in normal brain tissue: 110 A/m2 for large CC, 50A/m2 for small CC and 60 A/m2 for ETC.

Thus, in epileptic zone induced during rTMS currents density are in 2-3 times bigger than values in normal brain tissues. Prognosis magnetic fields value in rTMS of epileptic patients is significant factor of therapeutic compensation of paroxysmal activity and block of seizure fits. Mathematic modeling allows substantiating the using of difference types of coils in epilepsy treatment.

3. LESION THE SIXTH CEREBRAL NERVE IN PATIENT WITH MULTIPLE MYELOMA

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Multiple myeloma is a progressive malignant hematological disease of plasma cells. Malignant plasma cells multiply uncontrollably in the bone marrow and generate excessive monoclonal imunoglobulin molecules, light chains, free monoclonal kappa

or lambda light chains. Multiple myeloma is the second most common malignangt disease of the hematopoietic, most common in men and increases with age.

The complaints of patient starting two years ago in the form of pain in the spine and ribs. The diagnosis was multiple myeloma IgG kappa PSIII/A with deletion of Rb1 and p53. The disaese treated with chemotherapy and after a year transplantation with autologous stem cells. After two years patinet had lesion the sixth cerebral nerve. Magnetic resonace imaging showed extensive osteolysis around clivus. Chemoherapy in combination with radiotherapy resultated of partial withdrawal of systemic manifestations without the recovery of function of n.abducens.

Multiple myeloma is a progressive malignant hematological disease of plasma cells with neurological complications: polyneuropathy, extramedullary spinal cord compression, compression extraxial brain with isolated cranial nerve lesion. In our overview it was cranial nerve lesion as a result of osteolytic destruction of the clivus. The occurance of these complications is a bad prognostic sign.

Multiple myeloma is a malignant hematological disease with neurological complications. That can occur at any stage of the disease, usually a sign of bad prognostic and therapeutic effect of implemented procedure.

4. TONGUE SOMATOSENSORY EVOKED POTENTIALS IN MULTIPLE SCLEROSIS

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The aim of this study was to determine the efficacy of tongue-somatosensory evoked potentials (tSSEP) in evaluation of brainstem involvement in patients with multiple sclerosis (MS).

tSSEP was performed on 10 healthy volunteers and 29 patients with first clinical episode of a demyelinating event suggestive of MS. Obtained data were compared between the two groups, and tSSEP findings of MS patients were correlated with clinical and MRI data.

MS patients had statistically significant prolongation of N1, P1 and N2 latencies on the left side compared with healthy controls (17.8+/-3.5 vs. 15.2+/-1.3, p=0.004; 23.9+/-3.3 vs. 20.8+/-1.0, p<0.001; 29.9+/-4.2 vs. 26.7+/-2, p=0.01, respectively) and P1 and N2 on the right side (23.8+/-3.5 vs. 20.8+/-1.3, p=0.04; 30.3+/-3.8 vs. 27.3+/-1.9, p=0.01, respectively).

Out of the 29 MS patients eight (28%) had clinically evident involvement of the brainstem and nineteen (66%) had brainstem lesions demonstrated on brain MRI. There were 19 MS patients with prolonged latencies of tSSEP on either side with no clinical signs of brainstem dysfunction and this difference was statistically significant (p< 0.0001). While tSSEP detected brainstem lesions in higher percentage than MRI, this was not statistically significant (p = 0.18).

This study has, on a larger number of MS patients, confirmed the usefulness of tSSEP in the evaluation of afferent trigeminal pathways in MS.

5. BILATERAL TEMPORAL LOBE AGENESIS WITH ASTROCYTOMAS

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Bilateral temporal lobe agenesis is extremly rare and very few cases have been reported in the literature.Astrocytomas are tumors that arise from astrocytes. These tumors are"graded" on a scale I to IV based on how normal od abnormal the cells look. There are low-grade astrocytomas (in childeren) and high-grade astrocytomas (in adults).

A 36-yer-old man presented with partial epileptic seziures. Neuroimaging (MR) showed frontal lobe masses and bilateral temporal lobe agenesis. The hitological diagnosis was astrocytoma anaplasticum grade III. SPECT (single-photon emissed computer tomography) showed increased acummulation od radiopharmaceutical in the frontal lobe and bilateral agenesis of temporal lobe.Elekctroencephalography (EEG) revelaed generalized slowing wich was more sever on the right side. Psychological testing was normal. Adjuvant chemotherapy consisting CCNU (lomustine) and vincristine was given folowed by radiotherapy with antiepileptic drugs (carbamzepine). We achived partial remission considering that the primay prognosis was not likely to result in a postive way.

The deficiency of development of temporal lobe is an uncommon condition. Astrocytomas are malignant brain tumors with incidence 6/100 000 and survival of two to ten yeras. In our case we found bilateral temporal agenesis with astrocytoma anaplasticum of the frontal lobe.

Bilateral temporal agenesis is extremly rare, especially in combination with malignant brain tumor (in our case astrocytoma). In the literature we have not found descripiton of a similar case.

6. SIMULTANEOUS BILATERAL THALAMIC HEMORRHAGE: CASE REPORT.

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Unlike of recurrent hypertensive intracerebral hemorrhage (ICH), bilateral or multilocular simultaneous ICH are registered in <1%, with bad prognosis and high rate mortality, in the literature are described less than 30 cases.

Simultaneous bilateral thalamic hemorrhage are extremely rare diseases and the most referred cases are from Asian countries. We present 65-years-old patient with premorbidal hypertension and hyperlipidemia, with acute onset of the disease (manifesting with deterioration of consciousness -somnolent, spastic tetraplegia, anarthria, aphagia with hypertension 170/100 mmHg).

Computerized tomography of the brain, made two hours after disease onset, showed bilateral hematomas in thalamic region. Magnetic resonance imaging do not suggests another etiologic possibilities, only occlusion of the Percheron artery (consecutive, early simultaneous or almost subsequent hemorrhagic transformation of the bilateral simultaneous thalamic infarcts after artery occlusion). Our patient was conservative treated, with improvement of consciousness , but with residual organic psycho syndrome, dysarthria with verbal contact and spastic tetraparesis.

The mechanism in the basis of simultaneous bilateral symmetrical hemorrhage is still unclear, although structural and hemodynamic changes after initial hemorrhage may provocation secondary hemorrhage. There are maybe two possible mechanisms: simultaneous rupture of bilateral microaneurysms or primary rupture of microaneurysm followed with secondary capillary or venous hemorrhage produced from reflector hypertension, intracranial hypertension and subsequent hemodynamic changes that affects contra lateral hemisphere, resulting with rupture of another blood vessels which are degenerative changed of preexisting hypertension.

7. EFFECTS OF LONG-TERM PLAYING VIDEO AND COMPUTER GAMES ON CHILDREN'S COGNITIVE DEVELOPMENT

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For the last few years the researches on the effects of video and computer games on the children's mental health have been increased. The children are not only passive receivers in the games but also participants in the contents which can, in many different ways, affect cognition, the affective domain and behaviour. The aim of this paper is to show a bad influence of long-term, daily playing video and computer games, on children's cognitive development.

Data for this research was collected from a sample of 552 primary school pupils from Canton Sarajevo, age 11 to 14. The children completed ,,Questionairre for students-own construction" The teachers completed „Teacher's Report Form" TRF6-18 which is one component of the Achenbach system of empirically based analysis (ASEBA.)

TRF scale of academic achievement (p=0.046) clearly shows the difference between children who spend 5 hours and more in front of the computers compared to children who do not spend more than 2 hours in front of the computers.On the TRF scale of functioning in school (TRF-p=0.007) also shows the difference in sense that children who spend more time playing games in front of the computers show lower level of functioning in school.

The research shows that children who spend 5 hours and more playing games every day show lower level of functioning at school and less successful achievement on an academic scale compared to children who do not spend more than 2 hours in front of the computers.

8. EPILEPSY AFTER ISCHAEMIC STROKE

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In the first few weeks after a stroke some people have a seizure, and a small number go on to develop epilepsy. The aim of this study was to analyze frequency of the epilepsy within patients with stroke. In addition, to determine epidemiological characteristics of these patients.

We have retrospectively analyzed patients data for a five-year period. Patients presented with ischaemic stroke in the Clinic of Neurology in Kosovo, have been included in this study. We have analyzed epidemiological characteristics of patients with epilepsy secondary to ischaemic stroke.

In total, 1450 cases with ischaemic stroke have been included in this study. Out of these, 151 (10.41%) cases have developed epilepsy. Males have been more affected compared to females (52.7% vs. 47.03%). Furthermore, patients living in village have been more affected compared to those living in city (64.9% vs. 35.1%).

Epilepsy in patients with stroke is a special problem for the society, it increases the invalidity and the cost of treatment. Our data presented in this study are closely similar compared to previous reported data in other countries.

9. HYPERTENSION IN ADDMISSION IS ASSOCIATED WITH LOWER RISK OF EARLY SEIZURES AFTER STROKE

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Despite the common occurrence of seizure during early period after stroke, the relation between risk factors and this dramatic complication are not well known. We have determined the re-

lationship between blood pressure in admission and frequency of seizure occurrence early after stroke.

In this cross-sectional study we have included 1009 patients (mean age 69.5±11.5 years, 51% females) with ischaemic and hemorrhagic stroke. Frequency of seizure occurrence after stroke was determined. In addition, we have analyzed the effect of blood pressure and other risk factors (age, gender, diabetes, atrial fibrillation and dyslipidemia) on seizure occurrence in early phases, within four weeks after stroke.

Out of 1009 patients presented with stroke, only forty four (4.4%) suffered at least a seizure within four weeks after stroke. Patients with increased blood pressure in admission had lower risk of seizures compared with patients presented with low or normal blood pressure (3% vs. 7.5%), p=0.001. In a multilinear logistic regression outcome analyses of relevant confounders and potential predictors, including blood pressure, age, gender, atrial fibrillation, diabetes and dyslipidemia, blood pressure remained an independent predictor of seizure after stroke with relative risk of 2.5 (95% confidence interval, 1.4 to 4.7), p=0.005. In addition, in our group of patients presented with ischaemic stroke, hypertension was not associated with increased risk of hemorrhage.

Patients presented with high blood pressure in admission had lower risk of complication with seizures early after stroke. These results are in line with guidelines, recomanding not to decrease blood pressure until it reach very high values.

10. STATIN THERAPY IS ASSOCIATED WITH LOWER IN HOSPITAL MORTALITY RATE IN PATIENTS WITH ISCHAEMIC STROKE

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The beneficial role of the statins in ischaemic stroke patients and their neuroprotective properties is confirmed in previous studies. However, the effect of short term use of statins, such as in-hospital mortality rate, is not well determined.

This is a retrospective cross sectional study, conducted in Clinic of Neurology in Pristina. In this study we have included 800 ischaemic stroke patients (mean age 67±11, 51% females). Based on statin therapy prescription, we have divided patients into two groups (with and without statin therapy). Outcomes such as: patient death, secondary hemorrhage and epilepsy were compared between groups.

Statin therapy was prescribed in only 145 patients. Mortality rate was significantly more frequent in the group of patients without compared to patients with statin therapy 22.1% (n=177) vs. 0.12% (n=1), p<0.0001. Otherwise, no difference was found according to intracerebral haemorrhage and epilepsy. In the group of patients without statin therapy intracerebral hemorrhage was observed in only four patients without statin therapy (p=0.241), and epilepsy in 28 patients compared to only 3 patients in statin therapy group (p=0.125).

Statins are associated with lower in-hospital mortality rate in patients with ischaemic stroke, independently of dose. However, statin therapy was not significantly associated with decreased rate of other complications such as intracerebral haemorrhage and epilepsy early after stroke.

11. DIFFERENCES IN OCCURRENCE OF STROKE IN THE FIELD INTERVENTIONS OF INSTITUTE OF EMERGENCY MEDICINE OF COUNTY OF ISTRIA IN PULA DURING THE YEARS 2012 AND 2013

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Objective is to report on the differences in occurrence of patients with stroke (I 64) in a group of the diseases of the circulatory system in the field of the emergent medical interventions in Pula during 2012 and 2013.

The retrograde statistical analysis of morbidity indicators were performed taking in account data related to gender and age groups as those data were registered in the annual reports of Institute of Public Health County of Istria, Pula and Institute of Emergency Medicine County of Istria, Pula.

A total of 133 patients suffering of stroke were examined in field by the teams of Institute of Emergency Medicine in Pula during 2012. There were 55 males and 78 females or 10.4 % in the group of diseases of the circulatory system. Females (58.6 %) were sicker of stroke than males. Males and females were sick alike from stroke in the ages of 20-64 and the ages over 65. There were 163 patients examined during the 2013 who suffered from stroke (66 men and 97 women). A higher proportion of sick women (59.5 %) were reported that year. The share of men suffering from stroke aged 20-64 years (16.6 %) showed a difference in respect of all women of the same age (10 %). There were more sick women in the age older than 65 years. Men were increasingly suffering from hypertension (15 %), stroke recurrence (15 %) and myocardial infarction (7.5 %). Women suffered more often from heart disease (15.4 %), hypertension (14.4 %) and diabetes (12 %).

There are differences in occurrence of stroke in patients related to sex and age and the presence of the most common independent risk factors such as hypertension, coronary heart disease and diabetes. With the lifestyle changes, rapid care and early rehabilitation, we can influence the trend of reducing occurrence of stroke in younger and older age.

12. SOME EPIDEMIOLOGIC FEATURES OF CEREBROVASCULAR DISEASE IN PATIENTS TREATED IN THE CLINIC OF NEUROLOGY AT THE UNIVERSITY CLINICAL CENTER OF KOSOVA IN PRISTINA DURING THE PERIOD JANUARY - DECEMBER 2010

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Cerebrovascular disease (CVD) are the most common neurological disorder and the most common cause of disability. The aims of this study are to compare the prevalence of CVD with other neurological diseases, CVD distribution by age and sex, the relationship between types of CVD, as well as the most common risk factors and inpatient mortality in the Clinic of Neurology in the University Clinical Centre of Kosovo during the period January - December, 2010.

Retrospectively is analyzed medical documentation of 2384 patients hospitalized in the clinic of Neurology during the period January - December, 2010. The diagnosis of CVD is established on the basis of clinical examination of patients and neuroimaging examination of the barin (computed tomography or magnetic resonace imaging).

During the period January - December 2010 at the clinic of Neurology have been hospitalized 2384 patients. Of these 1115 (47%) were the CVD and 1269 (53%) with other neurological diseases. Of 1115 patients with CVD, 534 (48%) were male and 581 (52%) female. With ischemic stroke were 872 (78%), 37 (3%) with transitory ischemic attack, 152 (14%) with intracerebral hemorrhage, 24 (2%) with subarachnoid hemorrhage. Arterial hypertension was the most common risk factor of ischemic (63%) and hemorrhagic (87 %) stroke. Atrial fibrillation and diabetes mellitus are frequently encountered in ischemic stroke (9% and 15%) and hypercholesterolemia in hemorrhagic stroke (26%). The overall hospital mortality was 11%, 88% of these due to CVD.

CVD are the first cause of morbidity and mortality in the clinic of Neurology and arterial hypertension is the most common risk factor of ischemic stroke and hemorrhagic stroke.

13. SYMPTOMATIC EPILEPSIES DUE TO CEREBROVASCULAR DISEASES

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Cerebrovascular diseases (CVD) are the leading cause of symptomatic epilepsies. This study aims to investigate:

1. Frequency of epilepsy in patients with CVD

2. Correlation of epilepsy with the type of CVD (ischemic and hemorrhage) and with age.

It is analyzed medical documentation of 816 hospitalized patients with CVD in the clinic of Neurology in UCC during the period January-December 2010. The study included data on patients presenting with epileptic seizures after CVD, and those with previously diagnosed epilepsy, are not included in the study. The diagnosis of CVD is established clinical neurological examination and the brain imaging (computer tomography and magnetic resonance imaging). The diagnosis of epilepsy is established by the criteria of ILAE (International League against Epilepsy) 1989, and epileptic seizures are classified according to the ILAE classification, of 2010.

Out of 816 patients with CVD, 692 were with ischemic stroke and 124 with hemorrhage. From 816 patients, epileptic seizures had 81 (10%), of which 9 patients had been diagnosed with epilepsy earlier and they are not included in the study. From 72 (99%) patients with seizures after CVD 25 (33%) have been with ischemia, whereas 47 (67%) with hemorrhage.

CVD present fairly frequent cause of symptomatic epilepsies among patients treated in the clinic of Neurology at UCC (about 10%).

The biggest number of patients with epilepsy after CVD was with intracerebral hemorrhage. The age of patients is not important risc factor in determination of vascular epilepsies.

14. PREVALENCE OF REDUCED ALPHA GALACTOSIDASE-A ACTIVITY IN A COHORT OF 294 PATIENTS WITH CLINICAL DEFINITIVE MS

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To investigate the prevalence of patients with reduced activity of alpha galctosidase-A in a cohort of 294 patients with clinical definitive MS.

MS is the most common neurological disease causing disability in young adults. Diagnosis is established by a combination of clinical signs and symptoms and abnormalities of the central nervous system revealed by MRT. These alterations can possibly be mimicked by Fabry disease. Fabry disease is a rare x-linked inherited lysosomal storage disorder, caused by a lack of alpha galactosidase -A.

Activity of alpha galactosidase-A in dry blood was tested once in a cohort of 294 patients with clinical definitive MS. This cohort includes 193 female and 101 male patients. Assays were performed by Cento Gene in Vienna. Reduced enzyme activity was defined as levels below 3 μmol/l/h in women and levels below 2 μmol/l/h in men.

In 31 patients (10,5 %), 30 of the female patients (15,5%) and one of the male patients (1%), alpha galactosidase-A activity was below the cut off adapted for the genders. Enzyme activity

was reduced in these patients, but not more than two- thirds below the cut off. None of these patients had other symptoms or signs indicative for Fabry disease.

We identified 31 patients (10,5%) having reduced activity of alpha galoctosidase-A in one single testing. In all these patients enzyme activity was just moderately reduced. Further genetic testing will be needed to identify whether these patients are subclinically affected by Fabry disease. Another possibility is false-positive test results by the screening test.

15. SPONTANEOUS HIGH FREQUENCY EMG DISCHARGES IN DERMATOMYOSITIS

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Dermatomyosytis, a rare inflammatory myopathy occurs with incidence of 1: 17000, more often in females. Spontaneous electromyography (EMG) activity in the disease is well known, especially in the acute disease.

46-yrs old female, was examined and treated by dermatologist, because of skin inflammatory rush, erythematous, red patches, together with proximal, limb muscle, weakness. A neurological examination was then suggested, suspecting mystic. No family history of neuromuscular disorders, or any important disease is known. She had skin efflorescence's for the last two years, a muscular weakness for the last three weeks. In the physical examination an upper limb palsies (MRC 3), and tight muscle palsy, together with positive Gower's sign. During the hospitalization a laboratory, electrophysiogical and histopathological studies have been done.

16. CNS EFFECTS OF ANGIOTENSIN CONVERTING ENZYME INHIBITOR, CAPTOPRIL IN HYPERTENSION TREATMENT

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Since lowering of blood pressure by the inhibition of the renin-angiotensin-aldosterone system within peripheral but also central nervous system was documented, it seems that brain angiotensin II may play a key role in the contribution of CNS to hypertension (1). The aim of our study was to analyze central effects of angiotensin converting enzyme (ACE) inhibitor, captopril on the development of spontaneous hypertension and to determine molecular mechanisms of the drug actions in the brain.

Six-week-old SHR were divided into two groups: controls and group receiving captopril in the dose of 50 mg/kg/day for 6 weeks.

At the end of experiment, systolic blood pressure in the captopril group (121±5 mmHg) was significantly lower than that in the controls (186±7 mmHg). Captopril increased significantly brain NO synthase activity, however, it was not able to elevate expression of eNOS or nNOS. Moreover, captopril increased the level of nitrosothiols and antioxidant activity measured by TEAC assay. Captopril decreased the level of superoxides and expression of nuclear factor kappaB subunits in the brain.

In conclusion, captopril, beside inhibition of ACE, increased NO synthase activity and nitrosothiols with simultaneous decrease of oxidative stress in the brain. This together may contribute to the prevention of blood pressure increase in SHR. Moreover, in human study, captopril reduced body sway (2) which could reflect a better sensory-motor integration playing the significant role not only in the central control of posture but improved overall human sensory-motor interactions. Supported by grants APVV-0538-07, APVV-0742-10 and VEGA: 2/0190/11, 2/0178/09

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17. PARTICIPATION OF EPILEPSY DIAGNOSES IN THE OVERALL MORBIDITY REPORTED AT THE NATIONAL INSTITUTE OF PUBLIC HEALTH OF KOSOVA FOR 2011

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Epilepsy is a chronic disorder of the brain that affects people in every country of the world. It is characterized by recurrent seizures. Around 50 million people worldwide have epilepsy. Nearly 80% of the people with epilepsy are found in developing regions. Epilepsy responds to treatment about 70% of the time, yet about three fourths of affected people in developing countries do not get the treatment they need. Epilepsy has significant economic implications in terms of health-care needs, premature death and lost work productivity. People with epilepsy and their families can suffer from stigma and discrimination in many parts of the world.Aim

The aim was to analyze the diagnosis of Epilepsy reported by health institutions at the National Institute of Public Health of Kosova (NIPH) for 2011, analysed by age and gender.

For this retrospective analysis we used data from the morbidity for 2011 reported at the (NIPHK). The data are presented in tables and graphs. The statistical parameters calculated were relative numbers, average and the data were tested with chi square test for the level P <0.05 and P<0.01.

In Kosova for 2011 were reported 2940 diagnosis of epilepsy, of which the diagnosis of epilepsy (G40.0-G40.9) were 2905 (98.8%) and epileptic status (G41.0-G41.9) were 35 (1.2%) of diagnosis. Most affected age group by this disease has been 14-49 years with 58.30% with significant difference by age group P<0.001.

By gender the proportion is slightly higher for men with 52.7% compared to 47.3% for women with significant difference for P <0.01.

We need powerful advances in this field, in order to decreasing morbidity and lowered incidence of this chronic disease. Inadequate care for rural patients still prevails and access to essential medications remains limited.

18. DIFFERENTIAL EFFECTS OF TREADMILL EXERCISE ON CALRETININ IMMUNOREACTIVITY IN TYPE 2 DIABETIC RATS IN EARLY AND CHRONIC DIABETIC STAGES

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In this study, we investigated the effects of treadmill exercise on calretinin (CR), a marker of early postmitotic neurons, immunoreactivity in the dentate gyrus (DG) of Zucker diabetic fatty (ZDF) rats, before or after diabetes onset, and Zucker lean control (ZLC) rats.

For this study, 6-week-old ZLC and prediabetic ZDF rats, and 22-week-old ZLC and ZDF rats were exercised on the treadmill. Sedentary ZLC and ZDF rats of the same age were used as exercise experiment controls. The immunoreactivity of calretinin has been determined in the hippocampus of exercised-ZDF rats by IHC.

The exercised prediabetic ZDF rats did not show diabetes onset, while the sedentary prediabetic ZDF rats showed significantly increased blood glucose levels. The exercised diabetic ZDF rats exhibited a decrease in their blood glucose levels compared to the sedentary diabetic ZDF rats, but the levels were still above 20 mmol/l. ZLC rats of both ages were in the normoglycemic range. CR immunoreactivity was detected throughout the DG, including the subgranular zone and the polymorphic layer. Diabetic rats exhibited a significant decrease in the number of CR-immunoreactive cells and fibers in the DG. Exercise in the prediabetic ZDF rats significantly increased the number of CR-immunoreactive cells and fibers in the subgranular zone of the DG. In the ZLC and ZDF rats of chronic diabetic phase, exercise increased CR-immunoreactive neurons in the hilar region.

These results suggest that diabetes significantly reduces the number of postmitotic CR-immunoreactive neurons and the intensity of immunoreactivity and that exercise increases these CR-related parameters in a diabetic stage-dependent manner.

19. EPIDEMIOLOGICAL CHARACTERISTICS AND FUNCTIONAL DISABILITY OF MULTIPLE SCLEROSIS PATIENTS IN KOSOVO

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Multiple Sclerosis (MS) is a chronic recurrent neurological disease that affects the Central Nervous System. This study aims to determine epidemiological factors that affect the appearance of MS, such as: incidence, prevalence, mortality, case appearance in accordance with the disease phase RRSM, SPSM, PPSM, gender, age, age group, and to assess the of life in such patients using EDSS.

Deals with analysing diagnosed and treated patients in the Clinic of Neurology in Prishtina during the period of 2003-2012. The research was conducted through a questionnaire applied in the diagnosed cases of MS. Information on patients was gathered from: history of illness, discharge reports and other relevant documents on MS illness. Clinical and epidemiological-descriptive study methods were used. The acquired results are shown through tables, graphics. Statistical processing was conducted with Microsoft Office Excel.

From the total number of doubtful hospitalised cases of demyelisation (644) in the Clinic of Neurology in Prishtina, 412 cases (64%) were diagnosed with MS. For the period of 2003–2012 the prevalence of MS has been 19.6 of patients in 100,000 inhabitants. MS incidence rate was 0.95 of patients in 100,000 inhabitants. MS mortality rate was 0.14 of deceased in 100,000 inhabitants. The ratio female – male is 2.3:1. A larger number of patients fall within the age group of 30-39 years-old. Clinical form trends: RRSM 72.3%, SPSM 22.6%, PPSM 5.1%. The rate of EDSS 78.3% (0 - 3.5), 14.9% (4 - 6.5), 6.8% (7 - 9).

For the duration of 2003 – 2012, Multiple Sclerosis prevalence in the Clinic of Neurology in Prishtina was 19.6 patients in 100,000 inhabitants. The incidence rate was 0.95 patients in 100,000 inhabitants. When it comes to gender, female dominate over male, in the ratio 2.3:1.

20. GENEALOGY - AS A RISK FACTOR FOR STROKE

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The priority becomes effective primary prevention of stroke. In order to make effective stroke prevention , we need to know the risk factors, which can increase the patient's chance of stroke and it needs special care and preventive treatment.

Each group of patients consisted of 200 people in the first group (where the family had a stroke) were 97 women and 103 men. In the second group (where the family had a stroke) were 93 women and 107 men. Age first group was from 51 to 65 years (mean age 59.2 + \ -0.9), the second age group was 49 to 66 years (mean age 58.7 + \ -0.8). Thus differences relevant risk factors as age was not. Persons of the first group were 42 persons with a body mass index over 27, and patients of the second group - 44 people. That groups according to risk factors for stroke were nearly equal ($p < 0.05$). This observation began in January 2010. Duration - 5 years. All patients were of one ethnic group - Ukrainian. The purpose of the survey was to determine whether the difference in the number of strokes that arose over 5 years in patients who had and did not have relatives who have had a stroke.

At this stage of the investigation is continuing, but on March 15, 2014 we found that during the period of observation among the first group of stroke was observed in 22 patients (22 \ 200, 11%).

Among those of the second group of stroke during follow-up period was observed in 7 persons (3.5%) .

Comparing the number of patients first and second groups of stroke 11% and 3.5 % , we can assume that the presence of genealogical data on stroke in relatives of individuals should be taken into account during the prevention of this disease.

21. PHYSICAL ACTIVITY AND PROTECTION OF BRAIN FUNCTION

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Mens sana in corpore sano… were the words of Decimus Iunius Iuvenalis (Juvenal), a Roman poet, who lived in the 1-2nd century a.d. Everyone knows taht exercise is important for our overall well-being and improves our quality of life. But, only recently were we able to present scientific proof.

Through its overall positive effect on human health, exercise improves brain function. Today there is a well-known neurobiological base for the benefits exercise has on the brain. It has a direct effect on molecular structure of the brain.

In 1986. Rita Levi Montalchini and Stanly Cohen received a Nobel prise for physiology in medicine for discovery of neurotrophins. Neurotrophins belong to a group of nerve growth factors, proteins that improve survival of neurons, are important for long-term memory, help survival of present neurons, encourage growth and differenciation of new neurons and synapses. Physical activity enhances the production and secretion of brain-derived neurotrophic factor (BDNF). BDNF improves neuronal elasticity, it regulates enegy consumption, it prevents loss of body temperature during exposure to the cold or food deprivation.

Exercise is important during all ages. It improves memory, learning and concentration. It helps in school when we are young, makes us better in coping with everyday challenges during middle ages, and later it prevents memory loss and dementia.

22. FALSE POSITIVE MALINGERING OF MEMORY DEFICITS IN EPILEPSY PATIENTS

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Memory functions are routinely assessed in epilepsy patients. The aim was to find subtests of neuropsychological battery that may be associated with malingering of memory deficit.

We included 19 left epilepsy patients (13 temporal lobe epilepsy, 6 extratemporal lobe epilepsy), (mean age 38,3 years, FIQ 98,1), and 22 right-sided epilepsy patients (16 temporal lobe epilepsy, 6 extratemporal lobe epilepsy), (mean age 39,1 years, FIQ 88,3). Patients were examined with standard neuropsychological battery, we also used tests for memory malingering (Rey 15-item memory test, DS malingering, Vocabulary malingering).

In all group of epilepsy patients we found significant association between visual malingering and failure in immediate and delay visual recall, and between verbal malingering and failure in verbal IQ. In group of right-sided epilepsy patients we found correlation between visual malingering test and visual memory tests and nonverbal IQ. In group of left epilepsy patients we found correlation between verbal malingering tests and verbal IQ only. We did not find any association between malingering (visual and verbal) and genders, frequency of seizures, handedness, depression, suicidality or emotional lability.

We found close correlation between ipsilateral material/specific cognitive tests performance and malingering scores. In epilepsy patients malingering tests could be missinterpreted as false positive.

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23. CHALLENGING OR LOW EXERCISE INTENSITY TO IMPROVE MOBILITY AND BALANCE FOR CHRONIC STROKE SURVIVORS? PRELIMINARY RESULTS OF A RANDOMIZED PILOT STUDY COMPARING TWO SUPERVISED 8-WEEK COMMUNITY-BASED

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Reduced cardiovascular fitness and muscle strength with limitations in mobility and balance are typical burdens of persons after stroke. Improvements are reported after strength and aerobic exercise programs from 3 to 6 months. We aimed to evaluate the effects on mobility, balance and muscle function of two different 8-weeks supervised community-based programs in patients with chronic stroke, comparing an effective exercise intervention derived from literature to an experimental one carried out at lower intensity.

Eight adults with chronic stroke >6 months (M=7, age=71±11y, hemiplegia, n=6) were randomized in a "treadmill walking-strength training" (TRE-ST) intervention, based on moderate intensity treadmill walking (4-weeks) and lower limbs muscle strength training with gym machines (4-weeks) or in a "ground walking-power training" (GRO-PT) program combining interval low intensity ground walking (4-weeks) to lower limbs muscle power training performed with wearable weights (4-weeks). Each intervention was performed three times/week for 8 weeks, for a total of 24 sessions. The six-minute walking distance (6MWD), up-and-go time (UGT), 10 m time (10MWT), 5-sit-to-stand-to-sit time (5STS), balance score (Berg Balance Scale) maximal strength and peak power of quadriceps and biceps femoris (Kg and Watts, respectively determined by force-velocity curve by the linear encoder MuscleLab, Roma, Italy), were measured before and after 8 weeks.

All TRE-ST and GRO-PT subjects completed the program. Both treatments showed improvements, although not significant, for all parameters. GRO-PT showed significant improvement compared to TRE-ST for 5STS (p=0.021), 10 MWT (p=0.043), maximal strength of biceps femoris for all legs (p=0.037), peak power for quadriceps dx (p=0.021) and for all legs (p=0.006). Interestingly, considering all patients, after 8 weeks the functional changes were correlated to muscle function improvements as follows:

Maximal strength of biceps femoris dx (10MWT and UGT, p=0.003 and p=0.036, respectively); Maximal strength of biceps femoris sx (10MWT, p=0.021); Peak power of biceps femoris dx (Berg score, p=0.041); Peak power of quadriceps dx (10MWT, STS and Berg score, p=0.021; p=0.007, and p=0.007, respectively).

Preliminary data, limited by the small sample size and by some baseline differences between groups, showed that in chronic stroke persons: i)Both short supervised community-based programs were feasible and useful to improve their performance; ii)A low intensity program (GRO-PT) was more effective than an intense one (TRE-ST) for lower extremities function, with the advantage to be at low cost and therefore highly diffusible; iii)Maximal strength and peak power of the lower limb muscles are critical for mobility and balance and should be properly trained.

24. FOLLOW UP A PATIENTS WITH VENOUS SINUS THROMBOSIS - A CASE REPORT

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This is a case report of a 57 year old female patient that presented with intense headache, followed by pain and neck stiffness, right ear otalgia and severe vomiting . Inflammatory disease and meningitis were ruled out by a specialist in infectious diseases. Neck stiffness and left leg weaknes were observed by the neurologist. Brain imaging (CT, angiography, MR phlebography) showed thrombosis of the right transverse and sigmoid venous sinuses as a filling defect of sinuses nad veins. On day 4 of hospitalization, the patient developed intracranial hemorrhage due to anticoagulant treatment or as a consequence of sinus venous thrombosis. Brain CT scan showed right parietal acute hemorrhage. After 2 weeks, there was complete reabsorption of hemorrhage, but sinus thrombosis was still visible, wich was why anticoagulant therapy was re- introduced. After 10 days, brain CT- scan showed marginal recanalisation of thrombosis. By the time of discharge, the patient achieved complete neurological recovery. One month after discharge, the patient was still on anticoagulant treatment. Control brain CT-scan showed hypodense sigmoid and transverse sinuses with recanalization. Five months later, the patient suffered left ear hearing difficulties, and control brain imaging showed no major charges. After one and a half year, the patient reported occasional right eyelid swelling and ptosis. Brain CT-scan showed continuous filling defect related to chronic thrombotic content of right sigmoid and transverse sinuses. The patient continued anticoagulant treatment. In this case, venous sinus thrombosis was caused by inner ear infection, belonging to minority of cases where complete recanalization fails to occur.

25. REHABILITATION IN CHILDREN WITH ORGANIC SYNDROMES

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Organic syndromes is a general term used to describe decreased mental function due to a medical disease. The child who is during birth date or after birth date got injure or suffered infection brain. Results of that problems can be difficulties in perception, cognition , emotional problems , behavior. All of that problems prevented normal process of learning.

Disorders that cause damage to the brain and contribute to organic syndromes include in our children mostly epilepsy and hypoxie . Included more girls than boys (mean age 13 Years) with organic syndromes who got injure mostly in occipital and parietal lobus . In Rehabilitation with that children we do mostly verbal working memory, speech perception , orientation, practise for correction of dyslexia and dysgraphia . Rehabilitation of this children are individual or in a small group often with same cronologycal age .

All children showed problems in school (especcially in reading and writting) , emotional problems , cognitive problems , some of them and articulation problems . Females showed more behavior problems , but most intensive is language and verbal aquisition in males.

Rehabilitation varies with the causative disorder or disease . Many of the disorders are treated mainly with rehabilitation to assist the child in areas where brain function is lost . We are trying to find right way in rehabilitation how can disease reduced or removed. Some disorders are short- term and tretable , but many are long - term which depends of most factors.

26. IMPACT OF ANTICOAGULANT THERAPY ON THE OUTCOME IN ISCHEMIC STROKE PATIENTS WITH ATRIAL FIBRILLATION

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Oral anticoagulant therapy has the leading role in ischemic stroke prevention in patients with atrial fibrillation, but its impact on clinical outcomes has not been clearly shown. The aim of this study was to investigate the impact of oral anticoagulant therapy on stroke outcomes.

This retrospective study included patients with atrial fibrillation who were hospitalized for ischemic stroke in the period from 1st January 2004. until 31st December 2010. at University Hospital "Sveti Duh" in Zagreb. Patients were divided into three groups according to prior antithrombotic therapy usage. Analysis of medical records included: demographic data, stroke risk factors, the stroke severity (National Institute of Health Stroke Scale), localization/size (Oxfordishire Stroke Classification Scale), and outcome (modified Rankin scale - mRS) of stroke. The statistical data were analyzed with univariate and bivariate statistic analysis.

The study included 821 patients, whose mean of age was 77.6± 8.2 years. Twenty-one per cent of patients received prior anticoagulant therapy, 30% of patients received prior antiplatelet therapy while 49% of patients were without prior antithrombotic therapy. Patients with prior anticoagulant therapy were the youngest (74.9±7.9, p<0,0001). These patients had more often previous ischemic strokes (42.8%, p<0,0001), hyperlipidemia (51.4%, p=0,0002) and chronic myocardial disease (77.5%, p<0,0001). Patients without prior antithrombotic therapy had less often previously diagnosed atrial fibrillation (59.8%, p<0,0001) and they had the lowest risk for ischemic stroke (CHADS2=2.9±1.2, p<0,0001). Patients with prior anticoagulant therapy had better clinical outcomes with the lowest disability levels at discharge compared to patients in other two groups, but statistically significant difference was shown only in comparison to patients with prior antiplatelet therapy (mRS 3.8±1.9 vs. 4.4±1.6, p<0,0001). There were no statistically significant differences between groups in stroke severity, size and localization of stroke. The different INR levels in patients with prior anticoagulant therapy did not show statistically significant differences in following outcome measures: disability at discharge, mortality, stroke severity, size and localization of stroke.

Our study showed that patients with prior anticoagulant therapy had better clinical outcomes and lower disability levels at discharge from hospital in comparison to patients with prior antiplatelet therapy.

27.COGNITIVE IMPROVEMENT FOLLOWING CAROTID ENDARTERECTOMY IN ASYMPTOMATIC PATIENTS WITH ADVANCED CAROTID DISEASE

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Stroke/TIA-free patients with advanced carotid stenosis or occlusion (ICAs/o) were shown to have mostly subclinical cognitive decline. Mini Mental State Examination (MMSE) mostly fails to detect mild cognitive changes, so the Montreal Cognitive Assessment (MoCA) is often recommended. We aimed to evaluate whether carotid endarecteroctomy (CEA) results in measurable improvement of cognitive functions in patients with ICAs/o.

Seventy stroke/TIA free patients (Ps) with ICA s/o and 70 healthy controls (Cs) matched for demographics and vascular risk factors (VRF) profile were tested using MMSE and MoCA. Total of 58 patients with advanced ICA stenosis underwent CEA (PsCEA). Cognitive re-evaluation was performed at 6-8 months after CEA (for PsCEA) or after baseline cognitive testing (for non-CEA Ps and for Cs). Student t-test was used for comparison of cognitive outcomes among groups.

At baseline, MMSE scores were within the normal range in both patients and in controls, while differences were significant at total MoCA scores (p<0.001). Asymptomatic ICAs/o patients performed worse at baseline in visuospatial and executive functions (p=0.018), abstraction (p<0.001) and delayed recall (p<0.001). Controls did not show significant changes of cognitive function at 6-8 months. In PsCEA, follow-up showed significant improvement in abstraction (p<0.05) and delayed recall (p<0.05) with trend of better scores in executive functions (p= 0,069) when compared to non-CEA Ps. At follow-up, total MoCA scores showed cognitive impairment (≤26 points) in 8/12 (0.66%) non-CEA-Ps, compared to 7/58 (0.12%) in PsCEA and 5/70 (0.07%) in controls.

Improvement in short-term memory and abstraction was observed in patients following CEA. These patients often present with only mild cognitive changes, thus MoCA could be used as a practical tool for quick clinical cognitive evaluation and follow-up.

28. URODYNAMIC FINDINGS IN PATIENTS WITH ALZHEIMER'S DISEASE AND VASCULAR DEMENTIA

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Both male and female patients diagnosed with dementia often experience voiding dysfunction. In male patients it could be caused by the neurological disease itself or by bladder outlet obstruction, while in female patients causes may be complex and not always congruent with clinical symptoms. We aimed to compare urodynamic findings in patients diagnosed with Alzheimer's disease (AD) and in patients with vascular dementia (VAD).

Voiding function was assessed in 32 patients (16 females) with AD and in 36 patients (12 females) diagnosed with pure VAD. Both groups were matched for age, the degree of cognitive impairment, assessed using the Mini Mental State Examination (MMSE), and for treatment with anti-dementia drugs. Urodynamic study was carried out in all participants.

On urodynamic study, detrusor overactivity (detrusor hyperreflexia) was found in 19 (0,6) of patients with AD and in 26 (0,73) of patients with VAD (p<0,05). For both groups, no statistically significant differences in urodynamic findings were found between patients with and without detrusor overactivity in terms of degree of cognitive impairment, anti-dementia drugs treatment, age or gender. When abdominal pressure was elevated, signs of incontinence were recorded in both groups, more frequently in patients with VAD (16/36) than in those with AD (10/32).

Although performed on a small number of participants, our results showed that detrusor overactivity and urge incontinence seems to be present more frequently in patients with VAD. Treatment with anti-dementia drugs had no significant effect on urodynamic results.

29. HIGH CHOLESTEROL DIET INDUCED OXIDATIVE STRESS IN BRAIN AND LIVER

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Cholesterol in organism originates from the food or through biosynthesis in liver, which controls its homeostasis and metabolism, degradation or the conversion to bile salts. The input of cholesterol into the brain, the cholesterol richest organ, comes almost entirely from *in situ* brain synthesis. There is currently little evidence for the net transfer of sterol from the plasma into the brain. From 0.02% (human) to 0.4% (mouse) of the cholesterol in brain turns over each day so that the absolute flux of sterol across the brain is only approximately 0.9% as rapid as the turnover of cholesterol in the whole body of these respective species. Studies have suggested that high cholesterol diet leads to altered brain composition of structural and functional lipids. Such cholesterol metabolism imbalance in the brain might be related to the development of neurological disorders and neuronal death via oxidative stress

The goal of this work was to compare the liver, plasma and brain hypercholesterolemia and its relationship on alterations of oxidative stress markers in mice on high fat-cholesterol diet.

C57BL mice were fed with high cholesterol diet for 60 days.. We measured hypercholesterolemia in various brain regions (prefrontal cortex, cortex, hippocampus and cerebellum) liver and plasma and compare it with oxidative stress markers – superoxide dismutase, total glutathione, catalase, and malondialdehyde (MDA) as a marker of lipid peroxidation.

Hypercholesterolemia in mice blood was induced by high cholesterol diet. Levels of MDA as a marker of lipid peroxidation was only increased in liver. Levels of GSH were significantly decreased in the liver and increased in prefrontal cortex of treated mice. Catalase activity was increased in the cerebellum and decreased in the liver while superoxide dismutase was increased in brain and the liver.

Hypercholesterolemia increases oxidative stress in the liver and

the brain. Antioxidants are depleted in the liver but not in the brain. Parts of the brain, prefrontal cortex and hippocampus, are more susceptible to oxidative stress induced by hypercholesterolemia compared to the cerebellum.

30. STROKE RISK FACTOR PREVALENCE SURVEY AT WORLD STROKE DAY IN ZAGREB

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Cardiovascular and cerebrovascular diseases are leading cause of death in Europe, but also in Croatia. With the aim of raising public awareness about the risk factors for cardiovascular and cerebrovascular diseases, on 7th of April 2014 in the Kvaternik square in Zagreb, public activity of measuring blood pressure and blood glucose to randomly approached subjects was organized, within which this survey was conducted. 243 inquirers aged 23-94 years, mean age 65 years, of whom 96 were men and 147 women, were examined. All study subjects were measured blood pressure and postprandial blood glucose, height and weight from which BMI was calculated. Our results showed that 59 % of respondents have high blood pressure. 49% of all respondents are taking antihypertensive therapy which is well regulated in only 33 % of respondents. Also only 59 % of subjects who have diabetes and use antidiabetic therapy, glycemia is well regulated. One of the goals of the project was to identify people who have risk factors, and aren't aware of it. Elevated blood pressure was measured at 51 % of the people who had no known medical history of hypertension. By measuring glucose levels, we found elevated levels of glucose in the blood in 7 % of subjects which was not known before, while in one of them measured glucose level was higher than 11,1 mmol/ L, which means that we have discovered one subject with latent diabetes. 70% of our subjects had elevated BMI. Within this group, 66% of them have high blood pressure, while in the group of subjects with normal BMI values elevated blood pressure was found in 41% of respondents. 82% of respondents who have been diagnosed with diabetes have an increased BMI, while in population with normal blood glucose values that percentage is 70%.

Although this is not a representative sample, this research leads us to the conclusion that recognition and control of risk factors for cardiovascular and cerebrovascular disease in our community is not developed well enough, as well as therapeutic regulation of pre-existing disease. In this study we did not consider the reasons for such results, but we can certainly conclude that public health activities are definitely good and sometimes the only way to affect the development of awareness of the entire community.

31. STROKE RISK FACTOR PREVALENCE AND LEVEL OF STROKE RISK SURVEY IN RURAL AREA OF TOWN PLETERNICA

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Stroke risk factor (SRF) prevalence and level of stroke risk (LSR) have been investigated in north-eastern part of town Pleternica (PL), Pozesko-slavonska county (PSC), Croatia. Survey took part in the year 2013 as public health door to door activity. A standardized questionnaire of Croatian society for stroke prevention with offered questions was used. Educated interviewers which were members of Association of people's health „Andrija Stampar" have been performed the survey.

This survey has involved 26,6% (32/120) household establishments and 14,8% (61/411) of population of villages Buk, Svilna and Kalinic of north-eastern part of PL. 54,1% of inquirers were women and 45,9% were men. 58% of inquirers were 61 years and older, 32% were between age 51-60 years, 7% of age 21-30 years and 3% of age 31-40 years, but no inquirers between age 10-20 and 41-50 years were included, most likely due to fact that survey took place on a working day.

Independently of age, 51% of inquirers have no cerebrovascular disease in family anamnesis, others have at least one relative with cerebrovascular disease. Only 5% of inquirers have more than 3 kilograms below ideal weight, 51% of inquirers have up to 3 kilograms more or less than ideal weight, and 44% of inquired people have more than 3 kilograms over ideal weight. 36% of inquirers have systolic blood pressure over than 140 mmHg, while others have normal blood pressure values. 74% of inquired people didn't know for diabetes mellitus in family, only 3% of inquirers have known of diabetes, and 23% of inquirers have relatives with diabetes. 75% of inquirers claimed that they have normal values of blood cholesterol, and only 10% of inquired people have known atrial fibrillation. 30% of inquirers do not drink alcohol at all, and only 2% have WHO criteria for alcoholism. 67% of inquirers do not smoke, 27% used to smoke, and only 7% smoke. 27% of inquirers have inadequate and low physical activity, and 41% have anxiety, which are also risk factors for cerebrovascular disease.

Independently of age 83% of inquirers have significantly low and low stroke risk, 13% have medium stroke risk and 3% have stroke risk above average. Women have slightly lower risk than men, only 12% of women and men have medium stroke risk, but 7% men have stroke risk higher than average. Comparing sex in group with significantly low stroke risk, 50% of women and 38% of men were in that group, while independently of sex there were 44,3%.

Unexpectedly, we have shown that independently of age and sex 83% of people in survey have low and significantly low stroke risk which has to be confirmed with other survey in the future.

32. ASSOCIATION BETWEEN CEREBRAL VASO-MOTOR REACTIVITY AND HEMODYNAMIC AND MORPHOLOGICAL PARAMETERS OF THE CAROTID ARTERIES

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Many factors influence cerebral vasomotor reactivity (VMR), which reflects cerebral small vessels functional status, including morphological and functional parameters of large and small brain blood vessels.

The aim of our study was to investigate correlation between VMR, and morphological and hemodynamic parameters of carotid arteries.

In retrospective cross sectional study we included 285 patients. Cerebral VMR was evaluated measuring breath holding test (BHI), while morphological and hemodynamic parameters of carotid arteries were measured using ultrasonic methods (intima-media thickness-IMK, peak systolic velocity-PSV, end diastolic velocity-EDV). We also noted middle cerebral artery (MCA) hemodinamic parameters: mean flow velocity (MFV) and pulsatility index (PI). From medical records we collected information about age, gender, and vascular risk factors: hypertension, diabetes melitus, atrial fibrilation, cardiomiopathy, dyslipidemia, smoking.

Patients mean age was 54,62 (125 males, 160 females). We found correlation between BHI and some vascular risk factors: age (r=-0,242, p<0,01), dyslipidemia (p<0,05) and hypertension (p<0,05). We also found negative correlation between BHI and presence of carotid plaques, and BHI and IMK (r=-0,203, p<0,01). Positive correlation between BHI left ACM and EDV left ACI (r=0,121, p<0,05) was registered. We also found negative correlation between BHI and PI ACM on both sides (r=-0,268, p<0,01).

Our investigation shows correlation between cerebral VMR, and morphological as well as hemodinamic parameters in carotid arteries. Our results also show higher influence of morphological then hemodinamic parameters on VMR.

33. TRANSCRANIAL SONOGRAPHY CONFIRMS INVOLVEMENT OF THE NIGROSTRIATAL DOPAMINERGIC SYSTEM IN THE PATHOGENESIS OF PRIMARY BURNING MOUTH SYNDROME

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Primary burning mouth syndrome (BMS) is chronic intraoral burning sensation without medical or dental cause. Potential causes are neuropathic dysfunction and central mechanisms with involvement of the nigrostriatal dopaminergic system (NDS). BMS could also be premotor symptom of Parkinson's disease (PD). NDS dysfunction could be proven by transcranial sonography (TCS) which shows substantia nigra (SN) hyperechogenicity (>0.19cm2). This is a typical finding in >90% of patients with PD, but also in 10% of healthy individuals. The aim of this study was to determine the frequency of NDS dysfunction in BMS using TCS.

100 patients with BMS, 60 with PD and 40 healthy individuals are included. Using standardized TCS protocol, SN and other basal ganglia echogenicity as well as ventricular system diameter and brainstem raphe echogenicity were measured. Degree of intraoral burning sensation was measured by visual analogue scale, and affective status was determined by anxiety and depression scales.

Frequency of SN was the highest in PD, also significantly higher in BMS in comparison to controls (90% vs. 62% vs. 10%; p<0.01 respectively), while there were no differences in other basal ganglia between groups. The third ventricle diameter was significantly higher in PD and BMS compared to controls (8.4±2.2 vs. 8.2±2.1 vs. 5.3±1.9; p<0.01 for PD and BMS vs. controls). Frequency of brainstem raphe hypoechogeniicity was significantly higher in both patients groups compared to controls (75% vs. 74% vs. 10%; p<0.01 for PD and BMS vs. controls). Significant correlation was found between raphe echogencity and the degree of depression (r = 0.351; p = 0.012) and between SN echogenicity and the degree of intraoral burning sensation in BMS group(r = 0.303; p = 0.028).

TCS is noninvasive reliable method to identify BMS patients with NDS damage that in some of them could be early premotor PD symptom.This finding could have important therapeutic implications.

34. GIANT PSEUDOANEURYSM OF EXTERNAL CAROTID ARTERY.

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A giant pseudoaneurysm of external carotid artery is a very rare phenomenon. An 85-year-old male patient presented to our Department with sudden onset of dysarthria accompanied with confusion. During somatic status examination, a large palpable pulsatile mass on the right side of the neck was found. Computed tomography (CT) of the brain showed hypodensity in the right parietooccipital part of the brain. Ultrasound of carotid arteries showed an occlusion of the right internal carotid artery, which was probably caused by compression with a giant pseudoaneurysm of the right external carotid artery. CT angiography and magnetic resonance (MRI) angiography of neck vessels also showed compressed right internal carotid artery with large psudoaneurysm of the external carotid artery (diameter 5.1 cm) what was initially intepretated as tumorous mass. During treatment the neurological deficit regressed, and surgical treatment was suggested, but the patient refused any further surgical or endovascular treatment . Seven months later the patient was admitted to our Department soporose, with left hemiplegia. CT of the brain showed large zone of hypodensity in the right parietooccipital and temporal part of the brain. Despite the therapy and healthcare given, the patient passed away after twelve days of hospitalization. Giant pseudoaneurysms are very challenging to diagnose and to treat. Although, they are very rare it is important to consider them during clinical and diagnostical procedures.

35. CENTRAL POST STROKE PAIN- A CASE REPORT

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Central post stroke pain is neuropathic pain caused by damage of the central nervous system due to stroke. The most important characteristic of neuropathic pain is its distribution, in case of stroke it is localized to the territory of neurological deficit that corresponds to the lesion. Other important characteristic of neuropathic pain is its quality (sharp, burning, itching…). Central neuropathic pain (CNP) can start soon after the stroke or much later. Since CNP is refractory to usual analgesics its treatment represents a big challenge.

A 54 years old female with no previous illness has suddenly developed dizziness with balance disorder, nausea, vomiting and tinnitus in right ear. Her neurological examination was normal except mild hypogeusia. Otologic examination, audiogram and caloric responses were normal. MRI of the brain T1 and T2 weighted image verified subcortical postischemic lesion in anterior part of the left insula. Color dopler of carotid and vertebral arteries verified occlusion of the left internal carotid artery. EEG was normal. The symptoms have disappeared spontaneously in few days. Only mild gustatory disorder and right ear tinnitus were present. Two years later she suffers from paroxysmal sharp pain in right ear with propagation towards right lower half of the face. The pain can be triggered by heat and/or mechanical stimuli of the oral cavity. She was treated with usual analgesics for three months with no effect. She was referred to our Department for treatment of pain for therapy evaluation.

Both specific localization and sharp character of pain in this patient pointed to the neuropathic nature of pain which was verified by finding of the corresponding central nervous system lesion on neuroimaging. Because of the paroxysmal character we have decided to start treatment with antiepileptic carbamazepine which led to complete regression of pain.

36. MYOTONIC DYSTROPHY TYPE 1 AND METABOLIC SYNDROME

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Myotonic dystrophy type 1 (DM1) is the most common form of muscular dystrophy in adults. Metabolic syndrome might be associated with this disease because of the sedentary style of life due to muscle weakness and because of altered splicing of insulin receptor. Aim of this study was to investigate frequency and features of metabolic syndrome (MetSy) in patients with myotonic dystrophy type 1 (DM1).

Study comprised 66 genetically confirmed DM1 patients (50% males, 42 ± 10 years old, with disease duration of 42 ± 10 years and CTG repeat length of 752 ± 281). New worldwide consensus criteria for MetSy from 2009 were used.

Components of MetSy were present with following frequencies: hypertriglyceridaemia 67%, low HDL cholesterol 35%, hypertension 18%, central obesity 14%, hyperglycemia 9%. MetSy was present in 11 (17%) of patients. Among them, 7 (11%) had three MetSy components and 4 (6%) had four components. Presence of MetSy was not in association with patients gender and age, severity and duration of disease, neither with CTG repeats length ($p>0.05$). Patients with MetSy had significantly lower total SF-36 score as a measure of quality of life in comparison to patients without MetSy (35 ± 22 vs. 54 ± 23, $p<0.05$). Although certain components of MetSy are very frequent in patients with DM1, only 17% of them met the consensus criteria for MetSy. DM1 patients with MetSy had significantly lower quality of life.

37. CLINICAL FINDINGS IN MYOTONIC DYSTROPHY TYPE 1 VS. TYPE 2 – A COMPARATIVE STUDY

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Myotonic dystrophy type 1 (DM1) was described in 1909 for the first time, and clinicians are pretty much aware of this disorder. On the other hand, the first cases of myotonic dystrophy type 2 (DM2) have been described in last fifteen years, and disease is still underdiagnosed even in developed western countries. The aim of this study was to assess clinical manifestations of DM1 vs. DM2.

Study comprised 34 DM2 patients and 34 sex- and age-matched DM1 patients (68% females, mean age of 53±10 years). All patients were genetically confirmed.

Proximal muscles were similarly affected in both groups, while distal were less involved in DM2 ($p<0.01$). Following symptoms were less common in DM2 ($p<0.01$) – ptosis (3% vs. 62%), mastication weakness (21% vs. 82%), impaired speech (21% vs. 94%), swallowing difficulties (15% vs. 38%), significant sternocleidomastoid and trapezius weakness (56% vs. 100% and 15% vs. 36%, respectively), handgrip and jaw myotonia (71% vs. 100% and 38% vs. 97%). Forced vital capacity <90% was found in 3% of DM2 patients and 52% of DM1 patients ($p<0.01$). Differences in EMG findings were not significant – myopathy was present in 93% of DM2 and 100% of DM1 patients and myotonia in 90% and 100%, respectively. Calf hypertrophy was found in 29% and hand tremor in 38% of DM2 patients, while they were absent in DM1. Severe ECG abnormality was found in 9% of DM2 and 22% of DM1 patients ($p>0.05$) with shorter PQ interval in DM2 (0.16±0.03 vs. 0.21±0.02, $p<0.01$). Diabetes was more frequent in DM2 (32% vs. 7%, $p<0.01$). Frequency of eye cataract was similar in DM2 and DM1 (82% vs. 97%, $p=0.05$).

DM2, compared to DM1, is manifested with older age at onset, less involvement of distal, cranial and respiratory muscles, less pronounced myotonia and cardiac abnormalities. Presence of calf hypertrophy, hand tremor and diabetes is highly suggestive of DM2.

38. STORY-NARRATIVE & MEDICINE

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Story-narratives have always been an important part of medicine. Narrative based medicine is involved in: the diagnostic encounter (medical history-taking); the therapeutic process; the education of patients and health professionals; and research.

Patients use story-narrative to tell of the history of their illness within the context of their life story, and doctors use story-narrative to help explain diagnosis and therapy.

Medical history-taking is similarly structured as a story narrative: beginning with the main reason for *doctor/ER* visit; then previous medical history; followed by recommendations for how to proceed forward. Similarly, story-narratives typically start 'in medias res' (in the midst ofthings) with the protagonist in the middle of a predicament; followed by a telling ofhow the protagonist got there; then the story advances to how the protagonist gets out of trouble.

Just as a good and thorough medical history-taking is important and valuable to the diagnosis and treatment of an illness, so too is a proper story-narrative important and valuable to the understanding and healing of the patient.

With the advance oftechnology many medical schools and residency programs moved away from 'the art of medicine' and instead trained physicians to treat medical problems merely as problems to be solved, without taking into account the specific psychological and personal history of the patient. In more recent years, western medicine has begun to emphasize that medical practice should be structured around the narrative.

Today, story-narratives, as a part ofpersonalized medicine, are seen as a useful tool for understanding the individual, patient-specific role of an illness. Story-narrative provides meaning, context, perspective for the patient's predicament. It defines what, how, and why of the illness. It offers, in short, a possibility of understanding which can not be arrived at by any other means. Story-narratives tell us that we are not alone with our illness, and can help provide a template for how to deal with the illness.

This paper argues that story-narrative is important in medicine, both for the patient and the medical professional.

POSTERS PSYCHIATRY

39. STUDIES OF POLYMORPHISM OF CATHEPSIN D AND ALFA 2 MACROGLOBULIN IN ALZHEIMER DISEASE

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Alzheimer disease AD is a complex multi- factorial disease with the potential involvement of several genes. Alpha 2 macroglobulin(A2M)has been implicated in AD on the basis of its ability to mediate the clearance and degradation of b-amyloid peptide. Cathepsin D is one of the ma in intracellular proteases, with a probable role in the development of Alzheimer disease.

However, many question are unclear. There are difficulties in comparing the information collected in different geographic areas and ethic groups. It should also be clarified whether there are differences between early and late -onset Alzheimer disease.

The study material consisted of 50 patients of Polish origin with probable Alzheimer disease and 50 control material of individuals without any sings of dementia. Amplification and genotyping was performed as the described in the paper of Bertram L. et al.(2011)

The genotypic distribution in A2M exon 18 in patients with Alzheimer disease and genotype TI in A2M exon 24 were similar to that in the controls.

Significant differences were noted only in early onset AD in males and for old onset disease in females. The deletions were found more frequently in AD : however, they were found in only a small proportion of studied patients. The genotyping distribution of CjC and Cj T between male and female Alzheimer cases in group older than 65 years should be noted.

The findings indicate that A2M is not the only biological candidate gene for AD determination. Our finding indicate also that it is not easy to find a linkage between cathepsin D polymorphism and Alzheimer disease.

40. THE EFFICACY OF METACOGNITIVE - BEHAVIOR GROUP THERAPY AND FAMILY EDUCATION WITH PHARMACOTHERAPY ON DECREASING DEPRESSION AND MANIA SYMPTOMS AND PREVENTING THE RECURRENCE IN PATIENTS WITH BIPOLAR DISORDER

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In these past years lots of studies have been done about medical and non medical treatment in bipolar patients, however there are lots of problems made of relapse and decreasing functioning. The purpose of this study was to compare meta cognitive- behavior group therapy with medication and pharmaco therapy alone in bipolar patients.

In this study we used 54 patient who were admitted in psychiatry department of Hajar hospital in Shahrekord. They were randomly allocated in to three groups, each consisting of 18 patients. The first group underwent pharmacotherapy as well as metacognitive- behavior group therapy, the second received pharmacotherapy, meta cognitive- behavior group therapy and family education, and the third which served as a control group only received pharmacotherapy with Lithium. The first two groups involve in psychological class for eight times. Beck Mania and Hamilton Depression Scales were applied to all three groups before after therapeutic interventions as well as after six month of follow up.

our finding indicate a significant difference between trial groups after interventions and control group in decreasing mania and depression symptoms in active phase ($P< 0.05$). There was a significant difference between second group and control group ($P<0.05$), while metacognitive – behavior group therapy without family education wasn't efficient enough to prevent mania symptoms relapse ($p> 0.05$). At last no significant relationship was indicated between trial groups and control group pharmacotherapy accompanied by metacognitive- behavior therapy and family education is more efficient in treating the mania and depression symptoms compare to pure drug therapy and at last its efficacy become decrease after passing time.

41. THE EXAMINATION OF EFFECTIVENESS OF EMOTIONALLY FOCUSE COUPLES THERAPY ON LIFE SATISFACTION AND IMPROVEMENT OF DEPRESSION DUE TO HEART DISEAS

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The aim of this study is to identify and determine the effectiveness of Emotionally Focused couple therapy on decreasing the symptoms of depression due to heart diseases, and increasing satisfaction of life of people with cardiac diseases.

In this study, the pretest -posttest design with a control group has been conducted. In order to conduct this research, 14 couples among cardiac patients who refer to health center in Zaveh City were selected by available sampling; this sample was diminished to 10 couples before the intervention and they were randomly placed in two experiment and control group. The couples who were placed in experiment group received 10 sessions of EFCT, once a week for an hour and couples who were in control group did not receive this intervention.The tools for collecting data include Beck depression inventory (BDI-II), satisfaction with life scale (SWLS). Cardiac patients initially have been screened due to the depression diagnose and followed by (BDI-II) and (SWLS) in form of pretest and post test.

The results of this study indicate that EFCT significantly decreased the symptoms of depression in cardiac patients comparing to control group ($p<0.05$). In addition, EFCT significantly increased the satisfaction of life in patients with cardiac disease comparing to control group ($p<0.01$).

Emotionally Focused Couple Therapy not only affected to the depression symptom, but also improve the satisfaction of life of heart disease patient.

42. THERAPEUTIC EFFICACY OF LAMOTRIGINE IN A PATIENT WITH BORDERLINE PERSONALITY DISORDER AND DEPRESSION EPISODES: A CASE REPORT

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The aim of this report is to present therapeutic efficacy of lamotrigine in patients with borderline personality disorder and depressive symptoms.

We present a case of a 35-year-old patient, with completed secondary education, employed in the public administration, single, who lives with her family.

The patient has been treated at the Psychiatric Clinic for more than ten years and she has been hospitalized four times. Her last three hospital visits were realized in the Day Hospital. All admissions were a result of severe psychological difficulties manifested with unstable and intense interpersonal relationships with her family, at work (with the authorities), partners and her friends. Following these conflict situations she exhibits rejection sensitivity, feeling neglected, receiving no gratitude from the others, for her deeds, having feelings of emptiness, anger, distress, lack of motivation and willingness, and reduced working capacity. Thus, all these lead to self-harming thoughts and actions.

Over the years of pharmacological treatment she was receiving SSRI anti-depressive drugs, low dose of anti-psychotic drugs and recently a psychostabiliser has been introduced, firstly carbamezapin and then lamotrigine at a dose of 25, 50 and 2x100 mg/day. At the moment she is in a stable condition regarding her everyday functioning, relatively stable emotional state, without significant interpersonal conflict situations and normal occupational functioning.

In conclusion, in this patient with BD personality disorder and occasional depressive episodes lamotrigine has shown therapeutic efficacy in stabilizing her emotional condition, behavior and interpersonal and occupational functioning.

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43. TREATMENT OF PERSONALITY DECOMPENSATION AND BEHAVIORAL MALADAPTATION IN COMBATANTS WITH SCHIZOID PERSONALITY STRUCTURE

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Escalation of military actions in different regions of the world requires significant psychological and biological costs in combatants. Depletion of individual reserves leads to personality decompensation and behavioral maladaptation.

The aim of the study is optimization of mechanisms of psychological and biological protection of combatants with schizoid personality structure.

124 combatant of Special Forces aged 22-40 years 6-12 months after completion of participation in hostilities was included. 68 people was selected with signs of decompensation of personality and behavioral maladaptation developed in 7 to 25 days period after exposure to domestic and social stressors. 18 people showed prevailing schizoid personality structure. After their informed given, 9 combatants of Group A were administered with a Perphenazine 4 mg in the morning for 14-20 days, and another 9 combatants from Group B – with Thioridazine 10 mg in the morning.

Scales used for clinical and psychopathological evaluation: rating scale of multivariate clinical analysis (Alexandrovsky YA), Eysenck and Leonhard personality tests, Pathocharacterological diagnostic questionnaire of Lichko, Luscher color test , clinical questionnaire of neurotic state evaluation (Jachin KK, Mendelevich DM). Analysis of the results was processed using discriminant and cluster analysis (Braunli K).

Personal decompensation in combatants with schizoid personality structure manifested in the form of increase doubt about the validity of his behavior, self-statements of uncertainty, some timidity in banal domestic situations. Behavioral maladaptation accompanied by denials from both business and personal suggestions. Occasional obsessive thoughts, short memories of military events with a negative evaluation of their behavior, a sense of imaginary guilt, shame were registered. Drinking alcohol only intensified the sufferings.

After 5-7 day of administration of Perphenazine (p 0.005) combatants felt a surge of confidence, physiological energy, desire to make up for missed opportunities in work, in relationships with loved ones, while doubts and shyness with vegetative symptoms were disappeared. By 14-20 day of receiving Perphenazine soldiers felt quite harmonious, active and ready to build even new relationships. Obsessions were reduced, there wasn't a sense of guilt or shame. With critically assess their experiences in the recent past.

At the administration of Thioridazine (p = 0.05) combatants initially felt a burst of energy and then becomes noticeably easy muscle relaxation, required efforts for fair work, it was necessary to force themselves to perform household duties. Positive mood was acquired.

Preliminary data suggest the possibility of recovery of psychological and biological mechanisms to protect combatants with schizoid personality structure during personality decompensation and behavioral maladaptation.

44. THERAPEUTIC TROPISM OF PSYCHOTROPIC DRUGS FOR COMBATANTS OF THE CYCLOID PERSONALITY STRUCTURE AT THE STAGE OF DECOMPENSATION

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Participation in hostilities for several years leads to episodic depletion of individual reserves of combatants. Degree of the depletion may depends on the structure of personality. Drug tropism can determine more or less therapeutic efficacy on stage of personality decompensation.

The purpose of the study is to determine the therapeutic efficacy of psychotropic medications in combatants with cycloid personality structure.

124 combatants of Special Forces aged 22-40 years at 6-12 months after completion of participation in hostilities was included into study. 68 people was selected with signs of decompensation of personality and behavioral maladaptation developed in 7 to 25 days period after exposure to domestic and social stressors. After collecting the informed consent, 20 people with cycloid personality structure was selected for further division into two subgroups. Subgroup A (10 people) was treated with 5 mg diazepam daily. Subgroup B was treated with 50 mg sertraline daily. Drug was given at morning for 14-20 days.

Methods. Rating scale of multivariate clinical analysis (Alexandrovsky YA), Eysenck and Leonhard personality tests, Pathocharacterological diagnostic questionnaire of Lichko, Luscher color test , clinical questionnaire of neurotic state evaluation (Jachin KK, Mendelevich DM). Analysis of the results was processed using discriminant and cluster analysis (Braunli K), based on the null hypothesis that there is no difference between study groups.

Personal decompensation of combatants with cycloid personality structure manifested as rise or fall of emotional lability, amorphous anxiety, restlessness with some decrease in the overall tone and feeling light situational sadness when habitual hyperthymia disappears as response to banal peaceful life stressors. Behavioral maladaptation was characterized by decline of verbal and everyday activity, some restriction of motivations what was perceived by combatants dramatically.

Reception of diazepam (p 0.005) for 3-5 day lead to the extinction of anxiety and emotional lability, but a sense of sadness at the level of hypothymia, sluggish verbal and everyday activity persisted. By 15-20 day of treatment they have been irritated by slight and muscle relaxation and absence of the usual habitual hyperthymic mood.

In subgroup B (sertraline for 10 days (p 0.005) combatants began to feel the familiar shade of hyperthymic mood again with good physical tone. Episodes of anxiety, sadness, and emotional lability had been decreased. By the 20th day of sertraline combatants felt themselves in familiar sense of harmony with the world without restrictions of adequate everyday activity. Period of personality decompensation regarded as an unfortunate misunderstanding.

Preliminary data indicate that there is a therapeutic tropism of chemical structure of antidepressants to the cycloid personality structure at the stage of personal decompensation and behavioral maladaptation.

45. PSYCHOSOCIAL INTERVENTION IMPROVES QUALITY OF LIFE (QOL) FOR PATIENT WITH OVER 12-YEAR-OLD CASE OF AMUSIA

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A 63-year old female patient still suffers from amusia - the inability to read music in this case - more than 12 years after a stroke on the right hemisphere. The patient, however, can still listen to music for enjoyment and play the piano, but rarely did so at presentation. At the time of the stroke, the patient also lost theability to read, but it returned, with neuropsychological rehabilitation over the course of a year.

The patient presented for psychotherapy this year related to a chronic anxiety disorder as well co-morbid alcohol use disorder (AUD). As part of the psychotherapy, and to improve her quality of life (QOL) the psychotherapist has encouraged the patient to listen to music in public at concerts with friends and play music again, a psychosocial intervention. Music had once been this patient's passion.

The patient reported improved quality of life upon attending rehearsal of the Chicago Symphony Orchestra (CSO), and other musical events, during the spring of 2014, inter alia. She also remained in remission for AUD and was in remission for anxiety.

By incorporating a psychosocial intervention into her treatment, e.g., encouraging her to attend public musical events, and listen to and play music again, the patient presented after several weeks with increased vitality, and enthusiasm for daily activities of life. At the time of the stroke, in the year 2002 the patient was in the midst of a divorce, and had a tumultuous home life. It is hypothesized that the patient's idiopathic amusia is somehow related emotionally to this time of trauma for her, i.e. that it may have a psychogenic as well as neurologicaletiology.

Amusia is commonly caused by strokes, but has also been linked to right hemisphere seizures (Bautista, 2003). Symptoms that mimic epileptic seizures have been connected to stress and poor coping abilities (Brandt, 2012). It is hypothesized that this patient's amusia may be related to stress-induced siezures that mimic stroke in outcome. Her neurologist had diagnosed her with a stroke more than 12 years ago, but has no neuroimaging records of the stroke, or lesions and now refers to it as a "mystery stroke." Further study is needed to see what impact psychosocial intervention, and enhancement of coping skills for anxiety reduction, may have on a amusia and a patient's quality of life.

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46. SPECIFICATIONS OF DEPRESSIVE CONDITIONS OF OLD PEOPLE

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Ageing, as a biologically – genetic factor, has got a defined influence in etiopatogenesis of depressive phenomenology. The goal of this work is to define the frequency of depression syndrome in older population and to confirm etiopatogenetic factors of affective disorder of this type as well as to define the character or clinical manifestation and measures for conception of therapy of depression of old people.

Using Hamilton's scale for depression estimation we examined 96 old people aged from 65 to 80 including 40 men (41, 66%) and 56 women (58, 33%) during the period of time from 2010. to 2013. According to the score of Hamilton's scale certain amount of depression was obvious with 67 people which makes 69, 79%.

The largest number 37 (55, 22%) of depressive people is obvious in the group of those who used to live in a city, and then after being retired moved back to a village for economic reasons, then there is a group of 19 people (28, 35%) who live in Nursing Homes and the lowest percent is among people from rural areas, 11 people (16, 41%). Clinical manifestation of old people's depression is mainly dominated by body psychogenetic disorders (35%), non-organic disorders of sleeping (27%), adaption disorders (18%), general anxiety (18%) and suicide (2%).

Available therapy is introduced from such clinical presentation. It has to be based on ageing specifications: endogenity, organic changes and reactive – situational moments. The modern depression therapy consists of psychopharmcotherapy, psychotherapy and sociotherapy. In his therapy including the solution of health problems of old people, a doctor has to respect the prevention principle because the timely and adequate therapy of organic illnesses can prevent or postpone further complications (depression) and in that way not only the life can be prolonged but it can also be made more quality and content.

47. BURNOUT SYNDROME

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A burnout syndrome is a relatively new term, we have had some knowledge about it for the first time since 1980s, in USA (when scientific investigations were made with doctors, more concretely surgeons, anesthesiologists, when it was noticed that there was a high incidence of administering atenolol and tranquilizers – during the night shift, but in other group the administration of stimulation medications especially during their night duties when the peak of reduced concentration was between 02.00h and 05.00h in the morning, and the errors were with the highest degree) and is a syndrome of the contemporary way of life of the human being.

Burnout syndrome is the loss of mental and physical energy following a period of job –related stress. It is sometimes characterized by physical illness and extinction of motivation or initiative.In extreme cases there may also be suicidal tendencies.

The most complicated and complex consequence from Burnout syndrome, which is with a highest mortality, is stroke.

Prevention of Burnout syndrome – to use the nature more frequently, to know ourselves better, to meet more new people in our working surrounding, meditation, and if possible, to change the working atmosphere.

48. PREVALENCE OF DEPRESSIVE DISORDERS IN CHAHARMAHAL VA BAKHTIARY PROVINCE OF ISLAMIC REPUBLIC OF IRAN (2013)

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Depression is a common disorder among people. It is usually accompanied with low energy, hopelessness, helplessness, suicide and loss of appetite. It causes disturbance in job performance, interpersonal and social relations. The purpose of this research was to study the prevalence rate of depressive disorders and symptoms among Chaharmahal va Bakhtiary Province population ages 15 and above in 2012.

1032 population of Chaharmahal va Bakhtiary Province were selected by random cluster sampling method and then they participated in screening depressive test (Beck Depressive Inventory).

The results showed that depressive disorders are about 15.3 % of subjects. Furthermore, this study showed that hopelessness with 69.5 % is a most prevalent symptom in population.

The high prevalence of depressive disorders and some of mental and neurological symptoms such as hopelessness and loss of appetite among population suggest a broader investigation and prevention programs such as positive psychology and family happiness strategies by mental health authorities.

Key words: prevalence, depressive disorders, hopelessness, loss of appetite, positive psychology, family happiness, Iran

49. NEUROLOGICAL CONDITIONS POTENTIALLY MISDIAGNOSED AS MENTAL DISORDERS: CASE PRESENTATIONS

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The causes of acute psychiatric conditions are often proved to be a neurological disease that requires immediate treatment. In the emergency psychiatric room we are often confronted by patients with acute and severe neurological conditions, which are presented with psychiatric symptoms.

We will present three clinical cases of patients with acute severe neurological conditions, who were referred in psychiatric emergency room.They all had predominantly psychiatric symptoms, but thorough medical history, physical examination and diagnostic tests revealed neurological diseases.

Case 1: 38-year old male was referred to emergency psychiatric room by his family doctor, the referral stating that the patient has acute psychosis. It was his first visit at the psychiatrist. During the interview we noticed that the patient was confused, agitated, restless, he had difficulty answering the questions, it took a lot of time to answer, at times he did not answer at all. He was accompanied by his wife, who said that he had been to work the day before and was without any symptoms, but in the morning he was hallucinating and wanted to jump out of the window. After examining the patient, we noticed that he had fever, the laboratory findings showed a CRP rise and leukocytosis. After lumbar puncture, herpetic encephalitis was diagnosed.

Case 2: 45-year old woman with psychiatric history of depression, have been referred to psychiatrist for suspected worsening of depression with predominant somatic symptoms. She complained of feeling malaise. Detailed medical history revealed, that acute and severe headache was the main problem. Subarachnoid hemorrhage was suspected and confirmed on brain CT.

Case 3: 47 year old patient was brought to the psychiatric emergency room under the diagnosis of psychosis. During the psychiatric interview the patient was calm, seemed a little sleepy, he had formal thought disorders, nominal aphasia and apraxia were observed. Heteroanamnestic data revealed, the patient is addicted to alcohol and have epileptic seizures. The history of head injury was not reliable. The brain CT showed multiple intracerebral hematomas.

Many neurological conditions can produce psychiatric symptoms. Sometimes differential diagnosis is difficult. The evaluation includes a thorough medical history and detailed physical and neurological examination. Often, these cases represent life-threatening and frequently reversible conditions, where immediate diagnosis and treatment is crucial.

50. THE INCIDENCE OF HANGOVER AMONG THE KOSOVO STUDENTS DURING A WEEK OF HEAVY DRINKING ON HOLIDAY

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Hangover is the experience of various unpleasant psychological and physiological effects following consumption of alcoholic beverages and is generally characterized by a feeling of severe discomfort that may last more than 24 hours. Typical symptoms of hangover may include headache, drowsiness, concentration problems, dry mouth, dizziness, fatigue, gastrointestinal complaints, sweating, nausea, hyper-excitability and anxiety. The symptoms occur typically after the intoxication effect of the alcohol begins to wear off, generally the morning after a night of heavy drinking.

To study the incidence of hangover during a week of heavy drinking in young adults.

A total of 37 students from Kosovo, were interviewed on three occasions during their holiday in Tirana. They completed the Acute Hangover Scale and answered questions about their alcohol consumption and rest duration.

The incidence of hangover was analyzed the proportion of heavy drinkers (i.e. those reporting drinking more than 12 standard units of alcohol during the night before) scoring above the 90th percentile of light drinkers (i.e. those who had consumed fewer than seven standard units the night before). We estimated the course and predictors of hangover using random effects regression.

The incidence of hangover was 44% after drinking more than 12 standard units in the whole sample.

Hangovers after heavy drinking during holidays appear to be related both to amount drunk and time into the holiday.

51. OPIATE WITHDRAWAL SYNDROME IN NEONATES – 10-YEAR EXPERIENCE AT DEPARTMENT OF PEDIATRICS, GENERAL HOSPITAL PULA

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The pregnancy of a opiate abusing mother (OAM) is a high risk pregnancy; the prenatal care is usually inadequate, abuse of alcohol, nicotine and other drugs is often present and there is a high incidence of hepatitis and HIV infections. Neonates develop acute withdrawal symptoms soon after birth. The aim of our study is to present epidemiological and clinical characteristics of neonates of OAM in a ten-year period (2001.-2010.).

This retrospective study was conducted at General Hospital Pula, Department of Pediatrics. The data needed for the study were retriewed from our archive and from the archive of Institute for Public Health of Istria County (IPHIC). In the ten-year period, 30 neonates were hospitalized at our Department and 29 of them fullfilled the criteria for this study.

There were 250 women, older than 18 years, opiate abusers, registered at the IPHIC in the ten-year period. The OAM were 28,3±4,5 years old (median 27,5, range 20-36 years). Three OAM were abusing heroin during pregnancy, fifteen OAM were abusing methadone, two OAM were abusing buprenorphine, five OAM were abusing heroine and methadone and four OAM did not specify the drugs used. Eighteen OAM were positive on hepatitis C and five OAM were positive on hepatitis B and C. Sixteen (55%) male neonates and thirteen (45%) females were born. Before this pregnancy, thirteen mothers (45%) had at least one abortion. The mean gestational age of the neonates was 38,7±1,5 weeks. The birth weight was 3100,0±514,0 grams. Apgar scores were 9,4±1,1in the first minute and 9,7±0,7 in the fifth minute. The most common symptom of opiate withdrawal syndrome in neonates was irritability (79%), followed by tremor (55%), high-pitch cry (52%), hypertonus (24%), convulsions (10%), vomiting (10%) and extensive sweating (10%). In most cases (52%) symptoms first presented in the period between 24 and 36 hours after birth. The neonates were trated with phenobarbital 16,6±8,7 days and they stayed in hospital for 21,6±12,2 days.

Methadone is the most common opiate used by OAM. Most of OAM are positive on hepatitis C. The most common symptoms of opiate withdrawal are irritability, tremor and high-pitched cry. The symptoms presented mostly in a period between 24 and 36 hours after birth. The mean duration of phenobarbital therapy was 17 days, and a mean duration of hospitalization was 29 days.

52. SIMILARITIES AND DIFFERENCES BETWEEN SUICIDE AND EUTHANASIA

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Dilemmas linking euthanasia and suicide are interdisciplinary and multidimensional, thus gaining many faces. Through our work, we try to explain these faces, and resolve the dilemmas.

Euthanasia and questions of life and death, or the question of as-

sessment of one's quality of life, lead to the question of quality of dying. These thoughts were always present in the past, as they are today. Does a person need someone, or must there be someone who will give us 'permission' to die, in order to avoid painful dying? Is a painful life reason enough for death? Who is in charge of our life, and is there anyone except ourselves entitled to make those decisions? Are we capable of taking responsibility for our own life and our own death? Does leaving these decisions to others, Courts of law, or any other institution, mean we are shifting our responsibility on to someone else?

Who is entitled to answer this question? Or, by whose or which law? All this makes 'euthanasing' a very important and up to date subject. Can somatic medicine give an answer to this question?

When compared to suicide, a self-decided, independent ending of one's own life, it is hard to exclude psychiatry.

In order to bring the subject closer to those who are curious and interested, it is important to mention that there is a difference between 'a suicide' that a person undertakes out of 'ill reasons' and 'other suicide' which one undertakes because of a difficult and incurable disease.

53. THE PREVALENCE OF METABOLIC SYNDROME IN PATIENTS WITH SCHIZOPHRENIA AND RECURRENT DEPRESSIVE DISORDER IN THE MIDDLE DALMATIA

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Comorbidity of somatic and psychological illnesses is one of the most scientific and clinical challenges of modern psychiatry and it is a topic of this research.

Metabolic syndrome is defined by a constellation of interconnected physiological, biochemical, clinical, and metabolic factors that directly increases the risk of cardiovascular disease, type 2 diabetes mellitus, and all cause mortality.

The purpose of the current study was to investigate frequency, similarity and differences in metabolic syndrome between patients with schizophrenia and patients with depression. The parameters used for comparison were incidence of metabolic syndrome and its components among the patients with schizophrenia, depression and a control group.

A total of 124 patients were involved in this study; 62 with schizophrenia and 62 with depression. These patients were treated during their hospitalization at the Department of Psychiatry, Clinical Hospital Centre Split from November 2011 through May 2012. The control group consists of healthy individuals who are also a part of 10001 Dalmatians Project, conducted at Medical School Split.

The results of this study disclose comparative prevalence of metabolic syndrome among patients with schizophrenia and depression. The prevalence of metabolic syndrome according to NCEP-ATPIII criteria was 56.5% for the patients with schizophrenia, 53.2% among the patients with depression and 32.3% among individuals in the control group, which was statistically significant (P=0.002). Furthermore, a detailed analysis of each disease involved in metabolic syndrome showed a statistically significant difference.

According to this study, metabolic syndrome in psychiatric disorders appears to be a common problem, so further studies would be necessary, and particularly, a high awareness for this among treating physicians.

54. SUICIDAL BEHAVIOUR IN BORDERLINE PERSONALITY DISORDER

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The diagnosis of personality disorder requires a observing clinical history, physical and neurological examination and mental status examination. The diagnosis of personality disorders is based upon a longitudinal history of dysfunctional interpersonal relationships that cause impairment of function; enduring and relatively stable condition (i.e., ways of relating and thinking). The personality disorder are divided into three broad categories/clusters: A, B and C. Cluster B includes narcisstistic, borderline, histrionic and antisocial personality disorder. Borderline personality disorder (BPD) is explained by marked instability of mood, relationships, self-image, intense and unstable relationships, uncertainty about sexuality, everything is "good" or "bad" , recurrent threats of self-harm ("slashers"), chronic feeling of "emptiness".Structural and functional brain imaging studies on persons with BPD show reduction in the volume of the hippocampus similar to that seen in persons with depression. In an analysis of MRI studies, corelation was found between structural brain abnormalities and specific symptoms of BPD, such as impulsivity, suicidality and agression. BPD is often complicated with suicidal behavior. Suicidal acts like deliberate self-harm are often preceded by milder expressions of suicidality like death ideation or suicide contemplation. This progression, in individuals, from mild to more severe forms of suicidality has been referred to as the suicidal process. Evidence suggests that, once a person has experienced suicidality, may become more vulnerable to future suicidal behaviour as a result.

We included 30 female BPD inpatients diagnosed according to DSM-IV TR criteria. We examined the relationship between DSM-IV TR criteria met, results on SUAS scales and the presence or absence of a previous suicide attempt.

Normality of distribution of results by each item in SUAS was checked through Kolmogorov Smirnov's test. To establish difference in mean values between groups according to the presence or absence of a previous suicide attempt we used Mann-Whitney's test.

Subjects with previous suicide attempts show statistically significant differences on items of SUAS scale: 2 (anger and irritability), 8 (tension), 11 (impulsivity), 16 (optimism), 18 (suicidal thoughts), 20 (suicidal plans).

BPD is a heritable brain disease and must be regarded as a serious, disabling brain disorder, not simply aberration of personality and behaviour. Understanding risk factors in suicidal BPD patients is crucial in prevention of suicidal behavior. The assestment of risk symptoms should be good preventing strategy for suicidal patients. This relatively simple assessment tool (SUAS) may be applied in every day clinical practice. We need further research and larger sample to clarify our results

55. THE ROLE OF PTSD IN DEVELOPMENT OF ALCOHOL INDUCED DISORDERS

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Bosnia and Herzegovina is a postwar society, currently going through a transition period. It is known in the literature that PTSD is often co-morbid with drug and alcohol abuse. Objective of the study is to show how PTSD impact on development of alcohol abuse and related disorder.

Study design is prospective, epidemiological and analytical. This research included two groups of participants; 50 patients co-morbid with PTSD and alcohol induced disorders and group of 50 patients with alcohol induced disorder only.

Alcohol intoxication had 11 (22%) patients, alcohol withdrawal (with perceptual disturbances, 3 (7%); alcohol induced psychotic disorder with hallucinations 11 (22%); alcohol induced psychotic disorder with delusions 7 (14%), delirium 6 (12%); Alcohol induced persisting amnestic disorder 9 (18%); blackouts 1 (2%); tonic-clonic seizures 2(4%).

Group of participants with alcohol disorders only had less severe symptoms of alcohol induced disorders which could be considered for prevention alcohol disorder and PTSD disorder as well.

56. "ISOLATION": ABUSE OF PSYCHIATRY IN CROATIA DURING COMMUNISM

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Although the communist regime in former Yugoslavia was usually presented as "socialism with human face", violation of human rights was very common practice. One way of violating human rights through abuse of psychiatry was "isolation". Under this term people were coercively brought in psychiatric hospital without proper medical reason in order to move them away in certain social occasions; usually visit of some politically important person or public event.

All hospital admittance records from 1945 till 1990 were examined. Medical records for all patients for who reason of admittance was stated "isolation" were examined. The data were collected from the medical records of the patients and included gender, age, diagnosis under which patients were admitted, records of previous criminal activities, records of political engagement and socio-political circumstances of "isolation". From 1969 until 1987 a total of 57 people were "isolated" in Psychiatric Hospital Vrapce for a total of 131 times. Patients were isolated 1-13 times, with 57% isolated only once, one female patient was "isolated" 13 times. Majority of isolated patients were male (92%). In the moment of isolation patients were 38 years (range 21-61) old in average. Median length of hospitalization was 9 days (range 2 to 43). Forty-three subjects (75.4%) were previously hospitalized in a psychiatric institution due to medical conditions and for 14 subjects "isolation" was the only psychiatric hospitalization. Twenty-four patients had a criminal record before the first isolation and were isolated for 73 times (55%). Discharge diagnoses were as follows: alcoholism with or without personality disorder 28 (49%), schizophrenia 11 (19%), personality disorder 5 (9%), "sine morbo physico" 5 (8%) and others 8 (14%). Subjects were hospitalized during various politically important events taking place in Zagreb like visits of domestic and foreign politicians, opening of Zagreb Autumn Fair or Universiade. Half of all isolations occurred while President Josip Broz Tito visited Zagreb.

Violation of human rights was widespread activity in former Yugoslavia and "isolation"- coercive hospitalization was one of methods. Role of psychiatry as medical branch and psychiatrist as medical professionals will be discussed.

57. SOCIODEMOGRAPHIC CHARACTERISTICS OF TOBACCO SMOKERS AND NON-SMOKERS AND DIFFERENCES IN MORBIDITY BETWEEN THEM AT RURAL AREA OF BRODSKI DRENOVAC

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Assesement of differences in morbidity, socioeconomic and behavioral characteristics of tobacco smokers (TS) and non-smokers (TNS) is researched in rural area of Brodski Drenovac ((BD), birthplace of Andrija Stampar) near town Pleternica, Pozesko slavonska county (PSC) during the year 2009.

A questionnaire (short version of Croatian Health Survey 2008 (CHS)) with offered answers was used. The door to door survey included almost 40% of the household establishments and almost 12% of the population of BD.

46% of the inquirers are TS, 65,1% of male and 31,6 female gender. No statistically difference (SD) is noted in education degree and occupation.

SD show higher percentage retired TS men than in TNS, and in women SD significantly more housewives in TS. Male and female TS are approximately 25 years

younger than TNS. Independently of age some diseases are more common in TS than in TNS, such as chronic bronchitis and back pain in men, bronchial asthma in women and gastric ulcer in both genders. Cardiovascular diseases are slightly more common among TNS, but those results must be interpreted considering the higher age of the TNS. TNS are more satisfied with their health than TS.

Although PSC has the lowest smoking rate in Croatia, BD percentage of smokers in BD is more than twice higher than Croatian average. Cardiovascular diseases are slightly more common among TNS, but those results must be interpreted considering the higher age of the TNS.

58. SOCIODEMOGRAPHIC CHARACTERISTICS OF ALCOHOL CONSUMERS AND NON CONSUMERS AND DIFFERENCES IN MORBIDITY BETWEEN THEM IN BRODSKI DRENOVAC

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Assesement of differences in morbidity, socioeconomic and behavioral characteristics of alcohol consumers (AC) and non consumers (NAC) is researched in rural area of Brodski Drenovac ((BD), birthplace of Andrija Stampar) near town Pleternica in Pozesko-slavonska county (PSC) during the year 2009.

A questionnaire (short version of Croatian Health Survey 2008 (CHS)) with offered answers was used. The door to door research included almost 40% of the household establishments and almost 12% of the population of BD.

49% of the respondents answered that they were consuming alcohol during the year 2009.

81,4% of men are AC and 24,6% of women. No statistically difference (SD) is noted in education degree in men, but significant SD is present in women group, where better educated ones drink less. Also there's no SD in occupation of AC and NAC women, but significant SD in men occupation, where simple and other workers drink more. Working men drink more than other men, while housewives drink more comparing other females. NAC are approximately 20 years younger than AC. Independently of age some diseases are more common in AC than in NAC, such as chronic bronchitis, gastric ulcer and liver diseases in men and mental illness, high blood cholesterol rate and high blood pressure in women. NAC are more satisfied with their health than AC. Average weekly alcohol consumption in AC is 29,58 units, although recommended weekly maximum is 21 units of pure alcohol.

Although men AC drinks 18L of pure alcohol/year, alcohol per capita for BD is more than twice lower of Croatian average.

59. DEPRESSION AND CIRCADIAN TYPOLOGY

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Circadian rhythms include all physiological processes displaying a period around 24 hours. Sleep/wake cycles, body temperature, hormone secretion and other functions are subjected to person's individual circadian rhythm. Circadian typology includes three chronotypes: morning, neither and evening. The aim of this study was to examine the chronobiological aspects of depression.

This cross-sectional study aimed to determine circadian rhythmic expression in 60 patients suffering from depression. The patients were in remission and were treated as outpatients at the Department of Psychiatry of the University Hospital Center Zagreb. The data were compared to a control group consisting of 40 medical workers employed at the University Hospital Centre Zagreb. The study used a self-report measure of circadian typology - the Morningness-Eveningness Questionnaire (MEQ). It consists of 21 items and its objective is to depict patients' sleeping habits as well as their mood and physical activities.

According to our findings, among depressed patients 35% were

morning, 58.3% neither and 6.7% evening types. In the control group 46% were morning, 48% neither and 6.0% evening types. Depressed patients reported stronger morning fatigue. Further, they tended to go to sleep earlier and felt more tired earlier in the evening, and they were less prone to choosing morning periods for completing complex cognitive tasks.

This study supports the association between depression and some alterations in circadian rhythms of behavior and sleep. Depression may be considered as the consequence or trigger of circadian disturbances. However, both depression and circadian rhythm disturbances may have a common aetiology: a decreased cellular resilience associated with lower resistance to stressful events.

60. REVIEW OF SCHIZOPHRENIC PATIENT, PERPETRATOR OF MULTIPLE HOMICIDE

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Goal is to show paranoid schizophrenia patient,who commited murder of his father in acute phase of the disease; after several years in new acute phase he commited murder of his mother and sister.

This patient spent several years in medical institution(based on access on earlier medical documents),under mandatory retention in treatment in closed type institution,after court settlement that he was tempore criminis insane. One period of time after established remission of basic disease,

patient was under measurment of mandatory treatment in freedom. For the last couple of years,patient is in stable remission,with mild expressed negative schizophrenic syndrome. Subjective rating of quality of life(MANSA) is showing that he is sattisfied with his life quality,and sattisfying general functioning in his social enviroment. In methodology of this work we used MINI scale for registrating of psychotic syndrome temporary,and during the life; PANNS scale for measuring of positive and negative schyzophrenic syndrome and MANSA questionary of quality of life.

Results of the above mentioned measurment instruments are showing existence of psychotic syndrom during life time,without present psychotic syndrome. PANSS scale is resulting moderate high score in scale of negative schizophrenia syndrome, as well as in general psychopathology scale.

In monitoring of chronological process of paranoid schizophrenia through review of the case we are thinking that patient in acute phase of the disease,under domination of delusions and acustic hallucinations can be homicidal,while in remission phases he can achieve sattisfying functioning and quality of life.

61. MAJOR DEPRESSIVE DISORDER OR BIPOLAR II DISORDER

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Bipolar Disorder is a hereditary psychiatric condition that is associated with lifelong distress and impairment, characterized by severe and disabling mood shifts, and it is associated with risk of committing suicide. Until recently, Bipolar Disorder was rarely diagnosed in children and adolescence. According to the criteria presented by the Diagnostic and Statistical Manual of Mental Disorders IV TR, the age of onset for Bipolar Disorder is 20, and criteria do not distinguish between adults and children or adolescence. Multiple studies indicate that bipolar disorders are often underrecognized, misdiagnosed and incorrectly treated. Bipolar II Disorder is characterized by major depression and hypomania.

We report a case of a female adolescent patient, aged 15, under antidepressant therapy for a month, with a family history of a mother diagnosed with Bipolar II Disorder, who came in a depressed mood, irritated, showing a diminished interest or pleasure in almost all activities, preferring isolation, having feelings of guilt, manifesting sleeping and eating disorders, and having gone through several former suicide attempts. After several psychiatric and psychological evaluations, considering the symptomatology the patient presented, we first concluded that the patient is to be diagnosed with Major Depressive Disorder, and to be treated accordingly. Under continuous observation and evaluation, the patient spontaneously develops a hypomaniac episode. We considered changing medication and under new treatment the patient's condition improved. She was further diagnosed with Bipolar II Disorder.

Considering the symptomatology the patient presented, evolution under antidepressant therapy, family history of severe mental illness and careful assessment, we could establish an accurate diagnosis, in order to aplly an adequate treatment.

Bipolar Disorder underlying Major Depression may be missed. Bipolar Disorder continues to be a diagnostic challenge. The primary difficulty is differentiating MDD from BD since many patients present only depressive episodes when admitted into hospital. Missdiagnosis is common. Patients do not receive appropriate treatment. An accurate diagnosis inquires careful observation and assessment. It is important to consider the illness course, treatment response and family history for severe mental illnesses.