

RARE STROKE-RELATED PSYCHIATRIC DISORDERS

Marija Bender¹; Bojan Bender²; Ankica Mijić-Marić³; Davor Batinić¹; Anita Ivanković¹

¹Neurology Clinic, University Hospital Mostar

²Psychiatry Clinic, University Hospital Mostar

³Health Center Mostar

Rad je primljen 13.10.2022. Rad je recenziran 28.10.2022. Rad je prihvaćen 10.11.2022.

ABSTRACT

Stroke related adult neuropsychiatric syndromes can be classified according to four axes: behavior or personality disorders, disorders of the perception identification of the self, other people, places, and time, cognitive disintegration (acute confusional state) and affective or mood disorders. Although cognitive dysfunctions or mood and affect disorders are very common after stroke and represent a very important factor in the recovery and rehabilitation, we will give short overview of rare behaviour or personality disorders related to stroke because we emphasize the need for a good knowledge of the these syndromes, in order to make valid diagnosis and start targeted etiological treatment.

Keywords: Stroke, Cotard syndrome, Capgras syndrome, Delusional misidentification, Neurobehavioral disorder

Correspondence to: Marija Bender, marijabender@yahoo.com

INTRODUCTION

Stroke related adult neuropsychiatric syndromes can be classified according to four axes: behavior or personality disorders, disorders of the perception identification of the self, other people, places, and time, cognitive disintegration (acute confusional state) and affective or mood disorders (1). Although cognitive dysfunctions or mood and affect disorders are very common after stroke and represent a very important factor in the recovery and rehabilitation, we will give short overview of rare behaviour or personality disorders related to stroke such as athymormia, disprosodia (including „Foreign Accent syndroma“), Kluver Bucy Syndroma, Pathological Laughing and Crying with a description of „Fou rire prodromique Syndrome“ (2). Also it will be describe rare delusional misidentifications syndromas like Reduplicative Paramnesia, Cotard syndrme, Capgras syndrome, Fregoly syndrome, the syndrome of subjective doubles and peduncular hallucinations (1-3).

CAPGRAS SYNDROME

Capgras syndrome is a form of delusional misidentification. Patient is convinced that impostors, aliens, or robots have replaced one or several intimate persons and feel in danger. Surprisingly, the patient often has reduced interest for what has happened to the original person after his substitution (3). The attribution of a false identity may also concern inanimate objects or domestic animals. Many cases of the syndrome with different etiological factors are described in the literature. It usually occurs in psychiatric disorders such as paranoid schizophrenia, schizoaffective and other affective disorders (2). Rarely this syndroma can occure due to right frontal and parieto-occipital stroke, as well as in other neurological diseases such as dementia, frontal meningioma, Parkinson's disease, as part of postictal delirium or multiple sclerosis relapse. Most patients responde well to the treatmentaimed at

addressing the underlying cause of the disease (1-3).

Cotard syndrome "Zombie syndrome"

"I am a living corpse" is a favorite expression of people with this nihilistic delusion. Patients are convinced that they are dead, deny the existence of body parts or organs, and can even smell their decomposition. The syndrome was first described by the French neurologist Jules Cotard in 1880. in a patient with delirium. The syndrome usually occurs in patients suffering from dementia, anxious depression, or psychosis, but there are also rare reports of Cotard's syndrome in patients with cerebral ischemia localized in the right temporoparietal region, basal ganglia, and insular region (1-3).

Fregoli syndrome

Fregoli syndrome is a sort of paranoid hyperidentification. The patient believes that a stranger is actually a familiar person who has disguised himself to persecute him. This is usually associated with verbal threats and aggressive behavior of the patient. The similarity between two persons is not necessary for misidentification or hyperidentification to occur. It was first described in 1927 in London in a schizophrenic patient who thought she was being haunted by two theater actors. A similar syndrome is intermetamorphosis, where the patient believes that people reciprocally exchange their identities. Although it usually occurs as part of schizophrenic psychoses, this syndrome has also been described in patients with right frontal or parietal lobe stroke. This disorder is a result of dysfunction of the pathways that connect the areas responsible for emotions and facial recognition (2, 3, 4).

Peduncular hallucinations

Peduncular hallucinations, also known as "Lhermitte's hallucinosis", is a clinical syndrome characterized by vivid, „dream-like visual“ hallucinations that intrude on normal wakefulness. These visual illusions usually do not occur during the daytime, but often nightly and during the period of drowsiness. The

content of the hallucinations is rarely extremely bizarre, they are very realistic and often involve people and environments familiar to the affected individual. However, they may also include distorted images of animals and people ("Lilliputian hallucinations"). Peduncular hallucinations typically occur in thalamic or pontine stroke. There is not much evidence about the effectiveness of pharmacological treatment. In addition to secondary stroke prevention, antipsychotics and anticonvulsants can be used to control hallucinations (5).

Reduplicative paramnesia

Reduplicative paramnesia is a disorders of the perception identification of places. The patient is firmly convinced that he is in a different place despite any concrete evidence to the contrary. It has been reported with right frontal, parietal, temporal and thalamic stroke and duration of the symptoms is usually limited to the acute phase. A similar identification disorder is the "subjective double syndrome", in which a person believes that he has a double, that someone else has replaced him (1).

Dysprosody

Dysprosody is a disorder in which the patient has difficulties in conveying or expressing emotions through speech. There is a loss of the capacity of understanding and generate speech features such as intonation, pauses, stress, and cadences, as expressions of the emotional state of the subject. Strokes involving the right posterior-inferior frontal lobe are associated with dysprosody, but it can also occur in people with Parkinson's disease. A rare form of dysprosody is "Foreign accent syndrome" when people suddenly start speaking with a foreign accent. Only about 100 cases of this syndrome have been described so far and they were all associated with a lesion of the right frontal lobe due to stroke or head trauma.

Athymormia

Athymormia is a motivational disorder. Symptoms include apathy, asponaneity, and indifference. Patients are usually indifferent, lack

curiosity, flat affect. These symptoms are not accompanied by characteristic features of depression, anxiety, or abnormalities in cognitive or intellectual functioning. Atymormia is the result of a lesion of the pathways that connect the frontostriatal and limbic systems and usually occurs after a bilateral stroke of the thalamus, globus pallidus, or putamen (1, 2).

Kluver Bucy syndrome

Kluver Bucy syndrome is a rare neurobehavioral disorder characterized by abnormal sexual behavior (increased autoerotic, homosexual or heterosexual activities, inappropriate choice of sexual object), passiveness with loss of fear or anxiety, dietary changes (bulimia and loss of alimentary selectivity), hypermetamorphosis, hyperorality, and "psychic blindness"(failure in recognizing emotional visual stimuli). It was first described in an experimental model produced by the removal of temporal lobes in monkeys. Ischemic stroke is a very rare cause of Kluver Bucy syndrome, partial syndrome has been reported in the temporal lobe, and thalamic and subthalamic lesions. The presumed mechanism is dysregulation of the limbic system (1).

Pathological Laughing and Crying

This syndrome is characterized by the presence of episodic and contextually inappropriate outbursts of laughter and/or crying without commensurate feeling. "Fou rire prodromique" (translated as "prodrome of crazy laughter") is one of the pathological forms of laughter and it was first described by Féré in 1903. It is defined as pathological laughter, without a feeling of joy, but on the contrary, with an unpleasant feeling of anxiety. Usually lasts a few seconds to a few minutes and precedes a major apoplectic event, most often a stroke of the basilar artery (1-3).

CONCLUSION

The occurrence of a pure psychiatric condition, without other neurological signs, following stroke is an extremely rare event. Nevertheless, we emphasize the need for a good knowledge of the mentioned syndromes, in order

to make valid diagnosis and start targeted etiological treatment.

LITERATURE

1. Carota A, Bogousslavsky J. Handbook of Clinical Neurology: Stroke-related psychiatric disorders. 3rd ed. Elsevier. 2009.
2. Ferro JM. Hyperacute cognitive stroke syndromes. *J Neurol*. 2001;248:841-9.
3. Hackett ML, Kohler S, O'Brien JT, Mead GE. Neuropsychiatric outcomes of stroke. *Lancet Neurol*. 2014;13:525-34.
4. Crail-Melendez D, Atriano-Mendieta C, Carrillo-Meza R, Ramirez-Bermudez J. Schizophrenia-like psychosis associated with right lacunar thalamic infarct. *Neurocase*. 2013;22-26.
5. Galetta KM, Prasad S. Historical trends in the diagnosis of peduncular hallucinosis. *J Neuro-Ophthalmol*. 2017;0:1-4.

RIJETKI NEUROPSIHIJATRIJSKI SINDROMI NAKON MOŽDANOG UDARA

Marija Bender¹; Bojan Bender²; Ankica Mijić-Marić³; Davor Batinić¹; Anita Ivanković¹

¹Klinika za neurologiju, Sveučilišna bolnica Mostar

²Klinika za psihijatriju, Sveučilišna bolnica Mostar

³Dom Zdravlja Mostar

SAŽETAK

Neuropsihijatrijski sindromi povezani s moždanim udarom mogu se klasificirati u četiri skupine: poremećaji ponašanja ili osobnosti; poremećaji percepcije identifikacije sebe, drugih ljudi, mjesta i vremena; kognitivna dezintegracija te poremećaji afekta i raspoloženja. Iako su kognitivne disfunkcije ili poremećaji raspoloženja i afekta vrlo česti nakon moždanog udara i predstavljaju vrlo važan čimbenik u oporavku i rehabilitaciji, ovdje ćemo se osvrnuti na rijetke neuropsihijatrijske sindrome kojima etiološki čimbenik može biti i moždani udar. Poremećaji ponašanja ili osobnosti koji se mogu javiti kao posljedica moždanog udara su atimohormija, disprosodija (uključujući „Sindrom stranog naglaska“), Kluver Bucyjev sindrom, Sindrom patološkog smijeha i plača („Fou rire prodromique sindroma“). Iznimno rijetko nakon moždanog udara mogu se javiti i psihotični sindromi poput reduplikativne paramnezije, Cotardov sindrom, Capgrasov sindrom, Fregolijev sindrom, Subjektivni sindrom dvojnika i pedunkularne halucinacije.

Zaključak: Pojava izoliranih psihijatrijskih simptoma, bez drugih neuroloških znakova, je iznimno rijetka klinička manifestacija moždanog udara. Unatoč tome, naglašavamo potrebu za dobrim poznavanjem navedenih sindroma, u svrhu postavljanja valjane dijagnoze i pravovremenog započinjanja ciljanog etiološkog liječenja.

Ključne riječi: Moždani udar, Rijetki neuropsihijatrijski sindromi, Fregolijev sindrom, Capgrasov sindrom

Kontakt: Marija Bender, marijabender@yahoo.com