

POSTER PRESENTATIONS

P1 – ANAL CANCER TREATMENT OUTCOMES: A SINGLE CENTER EXPERIENCE

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Anal cancer is a relatively uncommon malignancy, accounting for approximately 2.5% of all gastrointestinal cancers(1). Despite its rarity, the incidence of anal cancer has been steadily increasing worldwide, partly due to changing epidemiological factors such as an aging population, the prevalence of human papillomavirus infection (HPV), and immunosuppression, particularly in individuals with human immunodeficiency virus (HIV) infections. The disease predominantly arises from the anal canal and is histologically categorized as squamous cell carcinoma in the majority of cases. The current standard of care for most cases of anal cancer is definitive chemoradiotherapy, which has dramatically improved outcomes over the past few decades. This approach provides high rates of local control and sphincter preservation(2).

This retrospective cohort study was conducted at the Sestre milosrdnice University Hospital Center, Zagreb, Croatia, a large tertiary care center. Patients diagnosed with anal cancer and treated over a 10 year period between 1st February 2015 and 1st February 2025 were included in the study. Eligibility criteria included histologically confirmed anal carcinoma, and availability of relevant medical records and follow-up data. The aim was to present the treatment outcomes of anal cancer patients, focusing on clinical characteristics, therapeutic approaches, and survival outcomes.

A total of 42 patients met the inclusion criteria and were included into the study. Vast majority of the patients were females (33 patients, 78,57%). Average age of study patients was 62,9 years. HPV status was available for 6 patients, and all these patients were HPV positive. HIV status was available for 1 patient (negative). Most of the patients (35 patients, 83,33%) had localized or locoregionally advanced disease (stage I-III). Only 6 patients (14,29%) had metastatic (stage IV) disease at the time of diagnosis, and for 1 patient it was not possible to determine definitive disease stage. As initial treatment, most patients (59,52%) received concomitant chemoradiotherapy (CRT). The second- and third- most common initial treatments were surgery (14,29%) and palliative radiotherapy (11,90%). RT was delivered using 3D conformal approach to a total dose of 50,4 to 54 Gy in 28 to 30 fractions, depending on the disease stage. Twenty-three patients completed planned CRT as primary treatment. In this subset of patients, the complete response rate following CRT was 56,52% (13 patients). Partial response was observed in 13,04% (3 patients), 8,70% (2 patients) had stable disease, while 4,35% (1 patient) experienced progression and developed metastatic disease. These results align with previously published data(3).

The findings of this single-center study demonstrate that definitive chemoradiotherapy is an effective treatment for anal cancer, with high rates of local control and overall survival consistent with those reported in larger, multi-institutional trials.

Keywords: anal cancer; anal carcinoma; single center experience; squamous cell carcinoma; human papillomavirus; concomitant chemoradiotherapy.

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P2 – ASSESSING WORK PRODUCTIVITY AND RETURN-TO-WORK OUTCOMES AMONG BREAST CANCER PATIENTS: A STUDY ACROSS TWO HEALTHCARE INSTITUTIONS

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Background: For many patients, returning to work after treatment is a key milestone in recovery, symbolizing a transition from illness to normal life(1). Staying in or resuming work often helps patients feel more useful and satisfied. Being part of the workforce can reduce feelings of helplessness and depression, contributing to better mental health(2). Additionally, the workplace provides valuable social interactions that offer emotional support, helping patients maintain connections and feel less isolated(3,4). Together, these factors significantly improve quality of life, enabling patients to feel effective and reintegrated into everyday life(5).

In Croatia, breast cancer is the most common cancer among women, with an age-standardized incidence rate of approximately 135 per 100,000 women as 2022(6,7). Since most women are diagnosed during their working years, the effects of breast cancer and its treatment on productivity and the ability to return to work have become increasingly important research topics in multiple countries being an important socioeconomic matter. Since there is limited research on this subject in Croatia, we decided to conduct a study assessing this issue.

Methods: Focusing on patients under 65 diagnosed with breast cancer and undergoing outpatient treatment, this research was conducted as a cross-sectional analysis at University Hospital Center Split and Sestre milosrdnice University Hospital Center from January 1, 2024, to December 31, 2024. Primary data were collected through questionnaires completed on tablets while participants waited for their appointments. The standardized WPAI:GH (Work Productivity and Activity Impairment: General Health) questionnaire was used to evaluate the impact of health conditions on work productivity, measuring effects on working hours and overall efficiency. It includes six questions addressing absenteeism (How much time has the person been absent from work due to health issues in the last 7 days), presenteeism (An

assessment of how much health issues have reduced productivity while at work), and overall productivity loss (The combination of absenteeism and reduced productivity in the workplace). Data analysis was performed using Microsoft Excel® and Stata®.

Results: The research included 195 female participants with an average age of 52 years, and more than 80% were diagnosed with non-metastatic breast cancer. Nearly 97% underwent systemic therapy, primarily hormonal treatment, while 40% received chemotherapy. A significant majority (89%) of the patients had surgical interventions. Most patients in the study had a high school education, reflecting the general population's education level.

Currently, 70.8% of participants are employed, 23% are retirees, and only 5% are unemployed – a figure consistent with low unemployment rates in the general population. Younger women were more likely to be employed. However, 46% of participants reported that their breast cancer diagnosis negatively impacted their financial situation. Absenteeism was notable, with 56.1% of participants on sick leave last week, resulting in an absenteeism rate of 31% and an average of 12.4 hours missed weekly due to health issues. Additionally, 75% reported reduced productivity at work (average score of 4.8 on a scale of 1 to 10), leading to a presenteeism rate of 38.5%. The combined reduction in work productivity—factoring in absenteeism and presenteeism—amounted to 55.7%. A comparison between metastatic and non-metastatic patients revealed higher employment rates in the non-metastatic group (75% vs. 47%). Patients with metastatic disease took an average of 1.5 more sick days but had similar presenteeism rates. Among chemotherapy patients, absenteeism was slightly lower (67%) compared to those not receiving it (73%), but presenteeism was higher (45% vs. 34%). Overall productivity loss was significant for both groups, at 63% for non-chemotherapy patients and 69% for those undergoing chemotherapy.

Conclusion: The study highlights significant productivity loss among breast cancer patients, with high absenteeism and presenteeism rates. Employment status varies by disease stage, emphasizing the need for targeted support to improve work-related outcomes and overall quality of life for affected women.

Keywords: breast cancer; work productivity; sick leave; WPAI:GH.

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P3 – AVELUMAB AS MAINTENANCE AFTER PLATINUM-BASED CHEMOTHERAPY FOR ADVANCED UROTHELIAL CANCER (AUC) – FOURTH UPDATE FROM CROATIAN URO-ONCOLOGY COLLABORATIVE GROUP (CUOCCG)

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Introduction: Platinum-based chemotherapy followed by avelumab switch maintenance in non-progressors is the standard of care first line treatment for advanced urothelial cancer (aUC). In this study, we describe clinical characteristics and updated outcomes in a ‘real-world’ cohort of patients treated with avelumab maintenance for aUC within Croatian Uro-Oncology Collaborative Group (CUOCCG).

Patients and methods: In this retrospective cohort study we included patients from 12 CUOCCG-affiliated institutions who received maintenance avelumab after platinum-based chemotherapy for aUC. Anonymized data were centrally analyzed. We reported toxicity, overall response rate, progression-free survival and overall survival for this cohort of patients, representative for treatment pattern of all aUC patients in Croatia.

Results: A total of 128 patients with aUC were treated with avelumab maintenance therapy from July 2022 to February 2025. The median age of patients was 69 years, 19% of patients had an upper urothelial tumor, 74% of patients received cisplatin (gemcitabine/cisplatin 62%, ddMVAC 12%), 37% of patients had visceral metastases only. Sixty-four percent of patients had ECOG PS 0. After a median follow-up of 19 months, 52 patients (40%) are still on avelumab therapy. The median progression-free time from the start of avelumab therapy was 14 months, while the median overall survival from the start of avelumab was 26

months. The median progression-free survival from the start of chemotherapy was 22 months, while the median overall survival from the start of chemotherapy was 49 months. The overall response rate to avelumab was 14% (complete response 4%, partial response 12%, stable disease 44%, and disease progression as best response 47%). No clinical factor was significantly associated with improved outcome to avelumab therapy. The rate of serious immunotherapy-related adverse events was 21% for grade 2, 6% for grade 3, and 2% for grade 4. There was 1 case of grade 5 event (myasthenia-myocarditis syndrome). Eight patients (6%) permanently discontinued therapy due to adverse events. A total of 27 patients who progressed to avelumab therapy (41% of progressors) received further active anticancer therapy (15, 7, 3, 2 patients received enfortunab vedotin, taxane chemotherapy, pemigatinib, trastuzumab-deruxtecan, respectively).

Conclusion: With longer follow up we observed stable high prevalence of cisplatin-based protocols, and unusually long progression-free survival, which may be reflection of retrospective nature of the study and the lack of central radiology review. However, overall survival corresponds to the registrational trial. In real world setting avelumab therapy is associated with low rate of immunotherapy-related side effects. We continue to closely monitor our real-life cohort.

Keywords: urothelial cancer; avelumab maintenance

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P4 – BEYOND SURVIVAL: MY SURVIVORSHIP PLAN – WHAT WORKS FOR ME?

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Survivorship focuses on physical, psychological, social, and economic issues affecting people after the primary treatment for cancer. The term cancer survivor can also refer to anyone who has ever been diagnosed with cancer no matter where they are in the course of their disease. Post-treatment cancer survivors range from people having no disease after finishing treatment, people who continue to receive treatment to reduce the risk of cancer recurrence and people with well controlled disease and few symptoms, who receive treatment to manage cancer as a chronic disease.

Survivorship care plan usually contains a summary with recommendations for follow-up care, based on the type of cancer and the suggested treatment. Treatment outcomes are one of the vital components of the survivorship plan that involve ongoing assessment of the initial cancer treatment effectiveness, moni-

toring for signs of cancer recurrence and managing long-term side effects and late effects. The plan may include schedules for physical exams and medical tests (laboratory, imaging) to check if the cancer has come back or spread to other parts of the body.

With ageing populations, more effective treatments, and a greater focus on early cancer detection, there is now an unprecedented number of cancer survivors. But many national cancer guidelines and services have not yet recognised that good cancer care extends well beyond diagnosis and treatment. Cancer survivors' experiences and needs are diverse. Evidence shows that tailored interventions are more effective than generic interventions, however, such interventions are not well supported in either oncology or primary care. A systematic but individualised approach, which acknowledges and supports complex medical, social, and personal needs is required. The model of cancer care with a focus on the acute, active phase is not enough to address those needs. Many survivors are discharged with ongoing problems. There are a lot of issues that may need to be addressed beyond cancer care to understand what survivorship consists of for each cancer survivor. To have better understanding, we need to examine the quality of life beyond survival.

Quality of life is one of the crucial aspects of survivorship. Survivorship plan needs to address potential physical and psychological challenges that can deteriorate it. It involves managing and mitigating treatment-related side effects, promoting healthy lifestyle choices, and addressing any chronic health conditions due to cancer or its treatment. It should include activities which support not only health quality of life but also emotional and social well-being, crucial for the person to have the capacity to implement survivorship plan.

Survivorship plan should also include information that can help with the emotional, social, legal, and financial needs the cancer survivor may have. It may include referrals to specialists and recommendations for a healthier lifestyle, such as diet change, exercise and regulation of smoking and alcohol intake. The primary goal is to enhance the quality of life and ensure ongoing support for the unique and unmet needs of each person affected by cancer.

It is very important to take the emotional well-being into consideration in survivorship planning. When distress levels are high, mental health support should be included. Psychosocial support helps individuals cope with the emotional burden of cancer, addressing issues like anxiety and depression symptoms and supporting them to build a better capacity to follow the survivorship plan. Psychoeducation can help patients to have better understanding of their treatment and follow-up care plan and thus improve their adherence. Sometimes professional support from psychologists, or psychiatrists may be recommended. These professionals can provide tailored interventions to address specific psychological needs and prevent complications that can be avoided.

Socialization and community engagement also have important role in a survivorship plan. Maintaining a social support system is essential for emotional well-being and can positively impact the overall quality of life. The plan may involve connecting patients with support groups, counselling services and/or community organizations that specialize in cancer survivors and can offer tailored programs to enhance the capacities of the patients involved.

As an example of the importance of prolonged support for cancer survivors, five women involved in the Centre for Psychological Assistance programs in EVERYTHING for HER show in their separate poster presentations what is important to each of them individually for their quality of life and how civil society organizations and programs have influenced their survivorship plan.

Keywords: survivorship; quality of life beyond survival; distress; psychosocial support

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P5 – CHARACTERISTICS AND OUTCOMES OF UNTREATED METASTATIC COLORECTAL CANCER PATIENTS: A SINGLE CENTER EXPERIENCE

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Background: Colorectal cancer (CRC) is the third most common cancer worldwide, with 1,926,425 new cases per year, and the second leading cause of cancer death (904,019)(1). Approximately 15% to 30% of patients have metastases at diagnosis, and 20% to 50% of patients with initially localized disease develop metastases. Unfortunately, a certain number of patients are not treated because of their poor general condition due to extensive disease or existing comorbidities. The ratio of untreated to treated metastatic colorectal cancer (mCRC) patients in an institution is a key indicator of healthcare access and quality, as it can reflect inequalities in care and outcomes, with studies showing that timely diagnosis and treatment initiation significantly improve survival rates(3). This retrospective study aims to investigate the natural history, survival outcomes and prognostic factors of untreated patients with metastatic colorectal cancer in a single institution.

Methods: The retrospective cohort study was conducted at the Department of Oncology and Radiotherapy, University Hospital of Split. It included patients who were either newly diagnosed with stage IV colorectal cancer or whose disease had progressed to an early stage in 2022 and who were treated with best supportive care (BSC) only. Data were analyzed with descriptive statistics methods using Microsoft Excel tools.

Results: Overall, 8 (7%) of 111 patients diagnosed with mCRC in 2022 received best supportive care. All of them presented to a multidisciplinary team and had pathohistologically confirmed adenocarcinoma with further molecular profiling. The median age was 73 years (range 52-86), and 63% were ≥70 years old. At the time of diagnosis, 63% of patients had an Eastern Cooperative Oncology Group Performance Status (ECOG PS) of 3 or 4. Most patients reported inappetence and fatigue, and 62% had lost an average of 10 kg body weight, which corresponds to cachexia 5 according to the Cachexia Staging Score (CSS). In addition,

all patients were already receiving concomitant medications for coexisting comorbidities, with cardiovascular disease being the most common (48%). The most common site of metastases was the liver, with 38% of patients having pure liver metastases and 62% having multi-organ metastases. The median OS for our cohort of untreated patients was 8.6 months, highlighting that 6 out of 8 patients had left-sided tumors, with an mOS of 8.7 versus 6.65 for right-sided tumors. Compared to 2017, when 17 (16%) of 107 diagnosed patients with mCRC received BSC, there was no statistically significant difference ($p > 0.05$)(4).

Conclusion: One of the indicators of the quality of mCRC care is the ratio of untreated to treated patients. The changing population, *aging* of the population, will bring more patients with significant comorbidities and borderline performance status for MDT to define possibilities of management with systemic therapy. Therefore, investment in early supportive care is needed to meet this increased need, and even closer collaboration with gerontology and other specialties is required to optimize the management of comorbidities to maximize cancer treatment delivery options(5).

Keywords: metastatic colorectal cancer; best supportive care

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P6 – COMPREHENSIVE GENOMIC PROFILING (CGP): SINGLE TERTIARY CENTER EXPERIENCE

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Introduction: Comprehensive genomic profiling (CGP) represents a significant breakthrough for cancer treatment in Croatia. It also serves as the foundation of precision medicine in modern oncology care.

Methods: Retrospective analysis of CGP results of solid tumours treated at at Dubrava University Hospital Tumor samples for CGP were collected. Total of 38 solid tumors were identified (4 head and neck tumors, 7 breast cancers, 5 lung cancers, 3 gastric cancers, 4 colorectal cancers, 1 bile duct cancer, 6 prostate cancers, 5 kidney cancers, 1 chordoma, 1 thymic cancer, 1 angiosarcoma). Twenty-two patients were male and sixteen female, the average age at the time of sample collection was 54.5 years (22-75).

Aim: To analyze our CGP results in order to determine potential benefits and feasibility of routine CGP analysis. To increase awareness and motivation for broader genomic profiling across different tumor types and to promote further research into potential therapeutic options.

Results: Some specific tumor types like gastric cancer had no targetable alterations. Most targetable gene alterations were found in kidney cancer (100%), lung cancer (80%), breast cancer (71%) and prostate cancer (67%). Fifteen patients (39%) had no suggested therapy options. Three reports (8%) had no clinically relevant gene alterations. Eleven (29%) patients have been treated with recommended regimens and 8 more will be reviewed for treatment options in case of disease progression. Only 4 out of 11 started recommended therapy due to the CGP report. The most common gene alteration in different tumor types was in KRAS gene (7/38, 18%), followed by PIK3CA (6/38, 16%), TP53 (6/38, 16%) and ARID1A (5/38, 13%).

Conclusion: Due to the small sample size and the diversity of tumor types analyzed, direct comparisons are challenging. However, certain known trends were observed, such as higher tumor mutational burden (TMB) in pre-treated malignancies, for example breast cancer patients which have already been exposed to perioperative oncologic treatment. Also, higher TMB was observed in lung cancers, especially the ones with more aggressive histology. For now, none of the therapies suggested by CGP have drastically affected any patient's course of treatment since a lot of them (5/11, 45%) have been introduced as standard of care treatment for specific tumor type. These patients also have notably longer PFS compared to the ones which started the treatment based only on CGP results which is to be expected. Concerning data is about the age of our patients. The average age of patients with no targetable mutations is significantly lower compared to the ones with targetable mutations. 39% of patients had no suggested therapy options, only potential enrollment into clinical trials which are often unavailable for Croatian patients, especially for the ones which have already been treated with several treatment lines. With time, further data collection and analysis will be necessary to assess the efficacy of recommended therapies and the overall feasibility of CGP in routine clinical practice.

Keywords: comprehensive genome profiling; precision medication; targeted therapy

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P7 – COMPREHENSIVE GENOMIC PROFILING GUIDED THERAPY IN THE TREATMENT OF GYNECOLOGICAL CANCERS – RESULTS FROM THE DEPARTMENT OF RADIOTHERAPY AND ONCOLOGY; UHC SPLIT

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Background: Gynecologic cancers affect over 1,3 million women yearly, and are responsible for almost 15% of cancer-related deaths resulting in over 600,000 women who succumb to the disease(1). Also, uterine and cervical cancer are the only entities with worsened survival in the last 20 years, highlighting the need for optimal diagnostic and therapeutic approaches(2). Despite recent breakthroughs regarding immunotherapy and targeted therapy, some of these drugs are still not reimbursed in Croatia. Thankfully, Croatia has a nationwide project of implementation of precision oncology and within the project, all patients diagnosed with metastatic disease have available comprehensive genomic profiling (CGP). Furthermore, since 2022. we have established a Molecular Tumor Board (MTB) for CGP-guided therapy. The aim was to present our results of CGP-guided therapy.

Methods: This was a cross-sectional analysis conducted at the Department of Radiotherapy and Oncology among all patients diagnosed with gynecological tumors whose tumor specimens underwent CGP testing and who were administered therapy in accordance with its results. Gynecological tumors encompassed uterine, ovarian, and cervical tumors. All included patients received recommendations from MTB. The data for the analysis were cut off at the time of the last visit for the patients still receiving the treatment.

Results: In total, 16 patients received recommendations from MTB and were treated with CGP-guided therapy since 2022. Median age was 59 years (IQR 50-68.5) and 9 (56%) patients were diagnosed with initially metastatic disease. The most common were uterine and ovarian cancers represented in 8 (50%) and 6 (37%) patients, while cervical cancer was diagnosed in 2 (13%) patients. All patients received treatment before CGP-guided therapy with the median number of previous lines of 2 (IQR 1-3), out of which at least one chemotherapy line was administered to all patients. Currently 7 (44%) patients are still receiving CGP-guided therapy, while 2 (12%) patients have finished scheduled therapy and are in follow up, and 7 (44%) patients who experienced disease progression. Administered CGP-guided therapy was olaparib, pembrolizumab, dostarlimab, and everolimus in 8 (50%), 5 (31%), 2 (13%), and 1 (6%) patients with the median number of cycles 6 (IQR 3.5-9). The best response observed was complete response in 1 (6%), partial response in 3 (19%), and stable disease in 5 (31%) patients. Median progression-free survival was 4.6 months (IQR 2.73-7.98) and there was no treatment discontinuation due to toxicity.

Conclusion: Our results have shown that, in patients who received at least 2 prior lines of therapy, more than 50% had a response to administered CGP-guided therapy. Furthermore, many patients are still receiving therapy. In conclusion, performing CGP and administering the therapy in accordance with its results has enabled us to offer our patients possible standard-of-care therapy for them.

Keywords: gynecological cancers; precision oncology; CGP-guided therapy

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P8 – CORRELATION OF RADIOLOGIC AND PATHOLOGIC RESPONSE AFTER NEOADJUVANT RADIOTHERAPY IN SOFT TISSUE SARCOMA: A SINGLE-INSTITUTION RETROSPECTIVE ANALYSIS

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Background: Soft tissue sarcomas (STS) are rare but aggressive malignant tumors, accounting for approximately 1% of all adult malignancies. Neoadjuvant radiotherapy (nRT) is essential in the multimodal treatment of localized STS, as it provides benefits such as tumor downstaging and enables the assessment of treatment response before surgery. However, standardized criteria for evaluating tumor response to nRT are lacking, often relying on both radiological and histopathological analyses. This study aims to examine the correlation between radiological and histopathological responses following nRT in patients with STS.

Methods: We conducted a retrospective analysis of patients with high-grade STS of the extremities and trunk wall who underwent nRT followed by surgical resection at the University Hospital Centre Zagreb between October 2022 and February 2025. Radiological response was evaluated using the Response Evaluation Criteria in Solid Tumors (RECIST), while histopathological response was assessed according to the European Organization for Research and Treatment of Cancer Soft Tissue and Bone Sarcoma Group (EORTC-STBSG) guidelines.

Results: Among the 12 patients included in the study, all (100%) successfully completed nRT. Of these, 42% were female. STS was located in the extremities in 83% of cases and in the trunk wall in 17% of cases. All patients presented with high-grade STS. The most common diagnoses were dedifferentiated liposarcoma and undifferentiated pleomorphic sarcoma. The total radiation dose prescribed during nRT was 50 Gy delivered in 25 fractions for most patients, except for those with myxoid liposarcoma, who received 36 Gy in 18 fractions. 17% of patients underwent neoadjuvant chemotherapy. Post-treatment MRI or CT imaging was available for 75% of patients, with no radiologic necrosis observed. Stable disease was documented in 44.5% of patients, while 44.5% showed a partial response, and 11% experienced disease progression. Postoperative histopathological analysis was available for 83% of patients. A complete pathological response (pCR) was observed in 60% of cases, while 40% exhibited 10–50% viable tumor cells. The overall survival rate was 100%, with a median follow-up period of 7 months (range: 5–71 months). Local recurrence occurred in 8% of patients, and distant metastases were observed in 8%. The median local recurrence-free survival was 12.5 months (range: 1–65 months), while the median metastasis-free survival was 12 months (range: 1–65 months).

Conclusion: This study highlights a significant discrepancy between radiological and histopathological responses following nRT in STS patients. Despite minimal changes observed on imaging and the absence of radiologic necrosis, 60% of patients achieved a pCR. These findings suggest that standard radiological assessments may underestimate the tumor's response to nRT, whereas integrating histopathological evaluation provides a more comprehensive assessment of tumor viability. Our results underscore the necessity for standardized response assessment criteria that combine radiologic and pathological data

to improve treatment evaluation in STS. Further studies with larger cohorts and extended follow-up are warranted to validate these findings and optimize therapeutic strategies in the management of STS.

Keywords: neoadjuvant radiotherapy;; soft tissue sarcoma; response assessment

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P9 – CURRENT EVIDENCE FOR A LUNG CANCER SCREENING PROGRAM IN UHC OSIJEK

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Background: Lung cancer screening is still in an early phase. Achieving early diagnosis is crucial to obtain optimal outcomes.

Summary: In this abstract, we will show the current evidence on lung cancer screening through low-dose computed tomography (LDCT) and its impact on mortality reduction, screening frequency and duration.

In Croatia I-ELCAP program started in octobar 2020 .

Lung screening consists of several steps– first patients undergo imaging in hospitals included in the screening program, then the artificial intelligence program processes the images and marks suspicious nodules and then the radiologist examines the images and writes the final report. Implementing Artificial intelligence (AI) software for detecting lung nodules has proved to be very useful in decreasing reading time for radiologists and for making the implementation of large-scale lung cancer screening projects feasible, financially and operationally.

There are several categories A1,B1-B6,C1,C2 and C3. Only C1 category is suspected lung cancer and patients are referred to pulmonologist.

The aim of this research was to evaluate patients who underwent lung screening program in UHC Osijek and had a positive screening results– suspected lung cancer marked as C1 category.

Methods:This study included total number of 3116 finished reports of patients who underwent lung screening program in UHC Osijek from 1th October 2020. until 3th January 2025. The data were obtained from medical documentation.

Results: Positive lung screening marked as C1 category had 119 patients (male 62, female 57). Among them, cancer was pathohistological proven in 23 patients through further diagnostic procedure (9 male and 14 female).

In 96 patients , the finding marked as C1 category have showed regressive dynamic on the next CT scan or negative PET-CT scan, also TTB or BRSC didnt find any tumor.

Also, 4 patients refused further treatment due to other comorbidities.

8 (4 male and 4 female) patients with proven lung cancer had lung surgery, and other 15 were inoperable at baseline LDCT.

Pathohistological 1 patient had SCLC and other 22 patients had NSCLC. High PD-L1 expression was observed in NSCLC patients

Discussion: For lung screening, it is critically important to accurately distinguish benign and malignant nodules, and hilar entities.The main reason for high number of patients with C1 category in whom subsequent diagnostics procedure ruled out a cancer are inflammatory, cicatricial changes or lung metastases.

Conclusion: LDCT screening in a specified population based on age and smoking history proved to reduce lung cancer mortality. Optimization of the target population and management of LDCT pitfalls can further improve lung cancer screening efficiency and cost-effectiveness.

Keywords: artificial intelligence; LDCT; lung cancer; lung cancer screening; NSCLC; PDL1

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P10 – DIFFERENCES IN TREATMENT OUTCOMES AND INCIDENCE OF IMMUNOTHERAPY-MEDIATED ADVERSE EVENTS BETWEEN PATIENTS WITH PROXIMAL VERSUS DISTAL COLORECTAL CANCER

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Introduction: Immunotherapy with pembrolizumab in the first-line treatment of patients with metastatic colorectal cancer with deficient MMR status significantly prolonged the progression free survival, which was demonstrated in the KEYNOTE-177 clinical trial. Given the known differences between proximal and distal colon cancer, we analyzed treatment outcomes and the safety profile of pembrolizumab in our institution.

Methods: In this retrospective study, data were collected on the age and gender of the patients and on the stage at which their cancer was diagnosed. The objectives of the study were to determine potential differences in overall survival (OS) and progression free survival (PFS) between patients with proximal versus those with distal colorectal cancer and to determine the potential difference in the occurrence of adverse events between the two groups.

Results: The study was conducted on 22 patients who started pembrolizumab therapy at University Hospital Centre Osijek from December 2022 to the end of 2024, of which 11 (50%) were male or female. The median age was 65 years. Proximal tumors were more frequent (13/22). In the majority (54%) of patients, cancer was diagnosed in the stage 4. Adverse events of the treatment were recorded in 9 (41%) patients, and these were most often an increase in transaminases (4/9) and hypothyroidism (3/9). All adverse events were grade 1 or 2. Patients with proximal tumors have had significantly more adverse events than patients with distal ones (Fisher's exact test, $p = 0.03$).

Kaplan-Meier survival analysis showed that the median OS of patients with proximal cancer was 32 months (95% CI, 7 – 32), and of those with distal cancer 33 months (95% CI, 19 – 33), with no significant difference. Median PFS in patients with distal cancer is 8 months (95% CI, 2 – 9), while it is not reached in patients with proximal cancer (also, with no significant difference between the two groups).

Conclusion: The KEYNOTE-177 trial did not show a significant difference in the OS between the two groups of patients, as well as in our study. PFS differs in our sample compared to the clinical trial which is due to the small sample in our study and the fact that in the clinical trial PFS was defined as the time from randomization to disease progression, while the time of exposure to pembrolizumab was 11.1 months, which is more similar to our PFS (time from the date of the first cycle of pembrolizumab to disease progression).

In our sample, patients with proximal tumors had adverse events significantly more often, which can potentially be explained by a different molecular profile compared to distal cancer and by the infiltration

of different T-lymphocyte clones. To our knowledge, this difference was not observed either in clinical trials or in the real world data, and research on a larger sample is needed to clarify this problem.

Keywords: pembrolizumab; colorectal cancer; OS; PFS; adverse events

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P11 – EFFECTIVENESS OF THE USE OF COLD CAPS IN PREVENTING CHEMOTHERAPY-INDUCED ALOPECIA – INITIAL EXPERIENCES FROM THE DEPARTMENT OF ONCOLOGY AND RADIOTHERAPY AT ZADAR GENERAL HOSPITAL

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Introduction: Alopecia is one of the most common side effects of chemotherapy (CT). Cold caps are used as a method to reduce hair loss that can occur as a side effect of chemotherapy. The idea behind this treatment is to reduce blood flow to the scalp, there by decreasing the amount of chemotherapy drugs reaching the hair follicles, thus reducing hair damage. Here we present the results of cold cap use at Zadar General Hospital.

Objectives:

To preserve hair after 2-3 cycles of chemotherapy (6 weeks).

To preserve hair 6-12 weeks after chemotherapy completion.

To assess the tolerability of cold caps.

To evaluate the effectiveness of cold caps in relation to the type of chemotherapy drugs used.

Population, Materials, and Methods:

Alopecia prevention procedures were applied to 51 patients using PAXMAN cold caps and the scalp cooling system during various chemotherapy regimens between January 2024 and December 2024. The average age of the patients was 55 years (ranging from 31 to 67 years).

Patients received chemotherapy for:

Breast cancer (36 patients)

Gynecological cancers (13 patients)

Lung cancer (1 patient)

A combination of breast and lung cancer (1 patient)

Out of the 51 patients, 19 received neoadjuvant therapy, 24 received adjuvant therapy, and 8 received therapy for metastatic disease. The majority of patients were postmenopausal (72%). Patients received different chemotherapy protocols, including:

15 ddAC-T

5 AC-T

3 paclitaxel/carboplatin/AC

2 AC-docetaxel

2 weekly paclitaxel

8 docetaxel-cyclophosphamide

16 paclitaxel-carboplatin

Alopecia Prevention Procedure:

Alopecia prevention was conducted in three phases according to the manufacturer's recommendations:

1. Preventive cycle (*pre-cooling*): Lasted 30 min.
2. Cooling cycle during chemotherapy infusion.
3. Post-cooling cycle: This phase lasted from 60 to 90 minutes, depending on the type of chemotherapy drug (20 minutes for docetaxel, 60 minutes for paclitaxel, 90 minutes for combination chemotherapy).
4. Alopecia severity was assessed according to the CTCAE version 4.0 scale:

Treatment success was defined as alopecia grades 0 and I.

Results:

After 6 weeks of chemotherapy, hair was preserved in 25 patients (49%).

In 15 patients (29%), hair was preserved even after the completion of chemotherapy (alopecia grades 0 and 1).

In patients receiving chemotherapy protocols containing anthracyclines (n=25), alopecia prevention was successful in 2 patients (8%) – alopecia grade 1.

In patients receiving chemotherapy based on taxanes (docetaxel, paclitaxel +/- carboplatin) (n=26), 12 patients (46%) had preserved hair (alopecia grades 0 and 1).

Side Effects:

9 patients (17%) experienced headaches

6 patients (11%) reported nausea

1 patient experienced fatigue

The procedure was discontinued in 22 patients (43%) at various weeks of treatment (4th, 6th, 9th, 12th) due to intolerance to the low temperature.

Conclusion:

Cold caps are effective in preventing chemotherapy-induced alopecia in patients receiving chemotherapy based on taxanes (docetaxel, paclitaxel +/- carboplatin). In patients treated with chemotherapy containing anthracyclines (AC), the effectiveness of alopecia prevention was significantly lower.

Keywords: cold caps; alopecia; chemotherapy

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P12 – ENFORTUMAB VEDOTIN (EV) IN PATIENTS WITH ADVANCED UROTHELIAL CARCINOMA (AUC) – FIRST RESULTS OF THE CROATIAN URO-ONCOLOGY NETWORK (CUOCG)

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Introduction: Enfortunab vedotin (EV) is important addition in the treatment landscape for patients with advanced urothelial cancer (aUC). EV recently become available in Croatia for the second line treatment for aUC patients, after progression on platinum-based chemotherapy and immunotherapy. The aim of this study was to present initial results of EV therapy in real life setting.

Methods: We conducted a retrospective cohort study involving five major Croatian oncology institutions where patients with aUC were treated. All patients who started EV therapy in Croatia were included in this study. Anonymized data was retrospectively collected from June 2024 to January 2025 and centrally analyzed.

Results: A total of 19 patients had been treated with EV in Croatia. Seventy nine percent of patients were male, the median age at diagnosis of aUC was 69 years, median age at the start of EV therapy was 71 years. Eleven percent of patients were ≥ 75 years old at the time of initiation of EV. Bladder primary was in 73% of cases, 63% of patients had pure urothelial carcinoma and 63% of patients had previously undergone radical surgery. At the start of EV therapy, 63% of patients were ECOG 0. Interestingly, 31% of patients had no significant comorbidities, 21% of patients had more than three associated comorbidities, and 15% of patients had a glomerular filtration rate of less than <30 mL/min at the start of therapy. Eight patients (42%) had two sites of metastasis, 1 patient (5%) had more than three metastatic sites, 3 patients (15%) had locally advanced disease. In terms of previous treatment, 78% of patients had received chemotherapy followed by maintenance avelumab. The most common first-line chemotherapy was cisplatin and gemcitabine protocol. After a median follow-up of 4.5 months, both progression-free and overall survival were not reached. The median duration of EV treatment was 11 weeks (range 8 to 32 weeks). The median number of previous avelumab cycles was 8. The best response to immunotherapy before EV was a partial response in four patients (21%), stable disease in five patients (27%), and disease progression in ten patients (52%). The median time from the end of immunotherapy to the start of EV therapy was 6 weeks. Eleven patients underwent radiological evaluation after starting EV therapy. Six patients (54%) had a partial response, two patients (18%) had stable disease, while three patients (27%) had disease progression as the best response. A total of 73% of patients are still on EV therapy, while three deaths were recorded. In terms of side-effects, 16, 4, 2, 3 patients had grade 1, 2, 3, and 5 treatment-related toxicity, respectively. The most common side effects were peripheral sensory neuropathy and skin toxicity. In 15% of patients, side effects required dose reduction. Comprehensive gene profiling (CGP) was performed for 31% of patients. Three patients were found to have a targetable mutation and have eventual therapy options post EV progression.

Conclusion: Initial data on Croatian patients treated with EV in second line after progression to chemotherapy and immunotherapy indicate encouraging activity however relatively high incidence of serious adverse events. Patients treated with EV merits close monitoring.

Keywords: enfortumab vedotin; urothelial carcinoma; second-line treatment

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P13 – FREQUENCY OF MOLECULAR PROFILING IN METASTATIC COLORECTAL CANCER AND ITS IMPACT ON OUTCOMES: A 2022 SINGLE-INSTITUTION STATUS REPORT AND COMPARISON WITH THE 2017 DATA

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Background: Molecular profiling has become a cornerstone in the management of metastatic colorectal carcinoma (mCRC), offering critical insights that guide therapeutic decisions and prognostication(1). Key genetic alterations, such as mutations in the RAS and BRAF genes, along with microsatellite instability (MSI) status and HER2 amplification, have been identified as pivotal biomarkers influencing treatment efficacy and survival outcomes(2,3). In Croatia, colorectal cancer remains a significant health concern, with the country having one of the lowest median overall survival rates for mCRC in Europe(4). A major factor contributing to these poor outcomes is a **stage shift**, with many cases being diagnosed at advanced stages when treatment options are more limited(5). Additionally, potential non-adherence to biomarker testing guidelines may further impact treatment decisions and patient outcomes by limiting access to targeted therapies. Despite this, there is a paucity of comprehensive data on the prevalence of these molecular alterations within the Croatian mCRC patient population. Understanding the frequency and distribution of these biomarkers is imperative for optimizing personalized treatment approaches and improving patient outcomes in this region. The primary objective of this study was to evaluate the testing rates of the aforementioned biomarkers for mCRC in a single academic institution in Croatia during the year 2022 and compare it to the results of a status report performed in the same institution for the year 2017.

Methods: This retrospective observational study analyzed RAS, BRAF, dMMR/MSI and HER2 profiles from all patients either newly diagnosed with mCRC or experiencing progression from earlier-stage disease in 2022. Data were obtained from the Department of Oncology and Radiotherapy, University Hospital of Split and analyzed using descriptive statistics in Microsoft Excel.

Results: A total of 111 patients were included in the study, of whom 86 (77.4%) were newly diagnosed with mCRC, while 25 (22.5%) had originally been diagnosed with early-stage colorectal cancer and later developed disease progression to distant organs in 2022. The median age of the patient group was 68 years, with 61 (54.9%) being ≤ 70 years old.

Biomarker testing for RAS, BRAF, dMMR/MSI, or a combination of these was conducted in 101 (90.9%) patients in 2022, compared to 74 (69%) in 2017. RAS testing was performed using various methodologies in 98 (88.2%) patients in 2022, with 42 (42.9%) of them found to have a mutation, whereas in 2017, RAS testing was completed in 69 (64.5%) patients, with 46 (66.6%) harboring a mutation. BRAF testing in 2022 was completed in 58 (52.3%) patients, revealing a mutation in 11 (18.9%) cases, whereas in 2017, 18 (17%) patients were tested, with 3 (16.6%) found to have a mutation. MSI status was assessed in 98 (88.2%) patients in 2022, with 6 (6.1%) identified as MSI-positive, compared to 23 (21.5%) tested in 2017, with 4 (17.4%) showing MSI positivity. Of the 75 patients (67.6%) who underwent HER2 testing based on immunohistochemistry, all were negative for HER2 amplification or HER2-low.

The median overall survival (mOS) for patients who underwent testing was 23.1 months. In contrast, those with an unknown biomarker status had a lower mOS of 12.2 months, although the difference was not statistically significant ($p=0.189$, $CI=0.95$). In comparison, in 2017, the mOS for tested patients was 25.9 months, whereas patients with unknown biomarker status had a significantly lower mOS of 6.5 months ($p<0.05$, $CI=0.95$).

Notably, 7 out of 10 patients with unknown biomarker status have not received systemic oncological treatment or have only received up to 2 cycles of first-line treatment due to initially poor performance status. Of these, 4 patients presented with an ECOG performance status of 2 or higher at the time of diagnosis, while 5 were over 80 years old. Similarly, in 2017, 15 out of 33 patients with unknown biomarker status did not receive systemic oncological treatment due to initially poor performance status.

Conclusions: Our findings show a significant increase in testing rates in our institution, with 90.9% of patients tested in 2022 compared to 69% in 2017. RAS testing frequency increased from 64.5% to 88.2%, BRAF testing from 17% to 51.4%, while MSI status determination showed the largest rise from 21.5% to 88.2%, underscoring a significant enhancement in adherence to molecular profiling guidelines. With HER2 testing conducted in 67.6% of patients, we can deduce it has also become an established practice in our institution. In both years, patients who underwent testing had a higher median overall survival (mOS) compared to those with unknown biomarker status. Notably, most of the untested patients in both years had worse initial conditions, which prevented them from receiving systemic therapy. These results highlight the critical importance of molecular testing in mCRC, as it supports more personalized treatment and improves patient outcomes.

Keywords: metastatic colorectal cancer (mCRC); molecular profiling; RAS; BRAF; MSI; HER2

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P14 – HOW UNDERSTANDABLE IS ONCOLOGICAL INFORMATION? LINGUISTIC ANALYSIS OF PLAIN LANGUAGE SUMMARIES AND CORRESPONDING SCIENTIFIC SUMMARIES OF COCHRANE SYSTEMATIC REVIEWS ABOUT ONCOLOGY INTERVENTIONS

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Background: Health literacy and access to health information are important in oncology, as patients are taking more active roles in treatment decisions(1,2). The American Medical Association and National Institutes of Health recommend that health information intended for the lay public should be written at a sixth-grade reading level(3). However, cancer-related materials, including online content, often exceed readability levels appropriate for the general public(4,5). To enhance accessibility, Cochrane Systematic Reviews provide both a scientific abstract (SA) and a Plain Language Summary (PLS)(6). PLSs convey high-quality healthcare evidence to the lay public so they should be written in a way everyone can understand, bridging the gap between healthcare users and professionals(6). The aim of the study was to assess the language characteristics of PLSs of Cochrane systematic reviews of oncology interventions in comparison with corresponding Cochrane scientific abstracts (SAs).

Methods: In this cross-sectional study, we included all Cochrane PLSs and SAs of systematic reviews of oncology interventions available in the Cochrane Database of Systematic Reviews. We assessed text readability, measured using the Simple Measure of Gobbledygook (SMOG) index, and the prevalence of words related to different language tones (clout, authenticity, emotions and analytical tones). Two independent assessors categorized the conclusiveness of the efficacy of interventions into nine categories.

Results: The overall median SMOG index for 275 PLSs was 13.0 (95% confidence interval [CI] 12.8-13.3). Readability scores did not differ across Cochrane Review Groups. SAs had a higher readability index than the corresponding PLSs (median = 16.6, 95% CI = 16.4-16.8). Regarding linguistic characteristics, PLSs were shorter than SAs, with less use of analytical tone, but more use of a positive emotional tone and authenticity. Overall, the 'Unclear' category of conclusiveness was the most common among all PLSs.

Conclusion: PLSs of Cochrane systematic reviews of oncological interventions have low readability and most give unclear conclusions about the efficacy of interventions. PLSs should be simplified so that patients and their families can benefit from appropriate health information on evidence synthesis. Further research is needed into reasons for unclear language to describe evidence from oncology trials.

Keywords: health literacy; oncology; cancer

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P15 – INVESTIGATING BREAST CANCER-SPECIFIC QUALITY OF LIFE IN PATIENTS FROM TWO HEALTHCARE SETTINGS

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Background: Measurement instruments for quality of life can be general or specifically tailored for certain diseases(1). An example of a disease-specific tool is the EORTC QLQ-BR23, designed to assess health outcomes and quality of life for breast cancer patients(2). Breast cancer, being the most common malignancy among women, poses significant public health challenge(3). Increasing attention is being given to the quality of life for patients, focusing on how diagnosis and treatment impact their overall well-being(4). While the quality of life of breast cancer patients has been extensively studied in various countries(5), limited research exists in transitional countries like Croatia, highlighting the need for dedicated studies to address this gap. Here, we present the results of our research addressing breast cancer-specific quality of life in our specific setting.

Methods: This study, conducted from January 1, 2024, to December 31, 2024, at University Hospital Center Split and Sestre Milosrdnice University Hospital Center, focused on breast cancer patients of working age undergoing outpatient treatment. While patients waited for their appointments, questionnaires were administered on tablets, utilizing the EORTC QLQ-BR23 tool to evaluate breast cancer-specific concerns. This instrument is effective in identifying significant changes in patient's health statuses. Data analysis was carried out using Microsoft Excel® and Stata®.

Results: A total of 195 female patients participated in the study. The average age of these participants was 52 years. Over 80% of the patients were diagnosed with non-metastatic breast cancer. Almost 97% received systemic therapy, primarily hormonal treatment, while 40% underwent chemotherapy, either as a standalone option or in combination with other therapies. The majority of patients (89%) had surgery and subsequently received adjuvant radiotherapy (59%). A smaller group, only 7%, was treated with palliative radiotherapy. In interpreting QLQ-BR23 results, higher scores in functionality scales indicate better

functionality, while higher scores in symptom scales reflect more pronounced symptoms. Regarding systemic therapy side effects, 31% of patients frequently experience dry mouth, and nearly 20% report altered taste, suggesting a limited but present impact on dietary habits. Additionally, 25% often feel eye irritation, and 40% frequently express distress over hair loss, indicating emotional strain. Nearly 30% report decreased attractiveness and discomfort due to body changes. Health-related anxiety is significant, with 40.1% often worried about their health and 25% almost always concerned. Approximately 41% show no interest in sexual activity, and over 50% are rarely or not sexually active, highlighting the disease's impact on this aspect of life. Pain in the arm or shoulder affects 35%, while nearly 40% struggle with arm mobility. Although 33.7% report no pain, 7.8% experience it almost constantly. Body perception is average (62.4/100), with non-metastatic patients scoring slightly higher (63.3) than metastatic patients (58.2). Sexual activity is low (26/100), with non-metastatic patients scoring marginally higher (26.7). Distress from hair loss averages 26.1/100, with metastatic patients reporting slightly higher scores (27.5). Overall, patients report a relatively high level of discomfort related to side effects (67.4/100), with metastatic patients at 68.3.

Conclusion: Our results indicate that the main issues related to breast cancer diagnosis are side effects of systemic therapy and low sexual function, with body perception and sexual aspects further affected in metastatic patients, with all of this highlighting the need to further address interventions and proper information that would help women to cope with these side effects.

Keywords: breast cancer; quality of life; EORTC QLQ-BR23.

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P16 – LONG-TERM OUTCOMES IN PATIENTS WITH METASTATIC NON-SMALL CELL LUNG CANCER WHO COMPLETED 2 YEARS OF IMMUNOTHERAPY OR CHEMOIMMUNOTHERAPY. A SINGLE-CENTER EXPERIENCE

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Background: Immune checkpoint inhibitors alone or in combination with chemotherapy are nowadays a cornerstone of treatment for patients with non-small cell lung cancer (NSCLC) without targetable alterations. Real-world studies suggest that completing two years of immunotherapy is a strong predictor of improved progression-free survival (PFS) and overall survival (OS). Adding stereotactic body radiotherapy (SBRT) for treatment of residual and/or oligoprogressive disease can improve outcomes of these patients.

Methods: We conducted a retrospective analysis of 28 patients who completed two years of immunotherapy with pembrolizumab (monotherapy or combination therapy) for advanced NSCLC in Sestre Milosrdnice University Hospital Centre. Treatment initiation occurred between November 2018 and December 2022. Statistical analysis was performed using the SAS program, considering variables such as age, sex, treatment type, SBRT at any point in treatment, histological tumor subtype (PHD), treatment duration, and best overall response.

Results: The median age at treatment initiation was 64 years (range: 31–81). The cohort included 13 female (46.43%) and 15 male (53.57%) patients. Combination therapy was received by 39.29% (N=11), while 60.71% (N=17) underwent monotherapy. Histological subtypes included adenocarcinoma (67.86%), planocellular carcinoma (21.43%), NSCLC-NOS (7.14%), and large cell pleomorphic carcinoma (3.57%). Median treatment duration was 24 months (range: 20–35 months, IQR: 3 months). SBRT was administered to 57.14% (N=16) of patients, with 62.5% receiving it for oligoprogression and 37.5% for oligometastatic disease. Among those receiving SBRT, equal proportions underwent combination therapy and monotherapy.

Outcomes: The median follow-up, estimated via reverse Kaplan-Meier, was 50 months (95% CI: 38–54). The objective response rate (ORR) was 82.14%, with complete response (CR) in 6 patients (21.43%), partial response (PR) in 17 patients (60.71%), and stable disease (SD) in 5 patients, respectively. Median OS and PFS were not reached due to high censoring rates (85.71% for OS, 75% for PFS). Disease progression occurred in 21.42% (N=6), with four of these patients having received both immunotherapy and SBRT before progression. We observed only one side effect among patients treated with SBRT (spinal stenosis after 2 radioablative treatments on the same metastasis in one year time span).

Conclusions: Our findings align with long-term survival data from registrational immunotherapy trials, as well as real-world evidence, suggesting better treatment outcomes in patients completing two years of immunotherapy. Adding SBRT alongside immunotherapy has the potential to further improve treatment results, but optimal dose, fractionation, target selection, and sequencing require further investigation.

Keywords: NSCLC; pembrolizumab; chemotherapy; SBRT; long term outcomes

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P17 – MULTIMODAL TREATMENT OF OLIGOMETASTATIC PROSTATE CANCER – AN INDIVIDUAL INSTITUTION EXPERIENCE

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Introduction: Oligometastatic prostate cancer (OMPC) represents an intermediate state between localized disease and widespread metastases. This entity has emerged as a distinct category due to advancements in highly sensitive imaging methods (e.g. PSMA PET/CT, NaF PET/CT), which have shifted the treatment paradigm for these patients. Curative-intent multimodal therapy is employed, combining local treatment of the primary tumour, local treatment of metastatic lesions, and systemic therapy to postpone disease progression and potentially find a cure.

Patients and Methods: By analysing data from the hospital information system covering the period from 1 January 2020 to 1 January 2025, we identified a total of 66 patients with a diagnosis of oligometastatic prostate cancer who were evaluated by the multidisciplinary team. Data were centrally analysed.

Results: All patients had histologically confirmed prostate adenocarcinoma. The median age of the patients was 71 years. The mean initial PSA value was 23.14 ng/mL, with a range from 2.6 ng/mL to 226 ng/mL. Three patients had GS 3+3, 18 patients had GS 3+4, 27 patients had GS 4+3, 5 patients had GS 4+4, 2 patients had GS 3+5, 9 patients had GS 4+5 and 1 patient had GS 5+4. When analysing the distribution according to clinical stage, the highest number of patients was in T2a clinical stage (24%), followed by T1c (18%). Other stages of the disease were represented as follows: T2 (8%), T2b (12%), T2c (15%), T3 (11%), T3a (3%), and T3b (9%). Data analysis revealed that the majority of patients (83%) had fewer than three metastatic foci, with the majority of them having metastatic disease in lymph nodes 44%, 30% of patients

had bone metastases, and 26% of patients had disease in both lymph nodes and bones. A total of 88% of patients were treated with a combination of radical prostate radiotherapy, or prostate bed radiotherapy, SBRT directed at metastatic foci, ADT, and ARPI. In 12% of patients, radical prostatectomy was performed along with SBRT, ADT, and ARPI. Three months after local therapies targeting the prostate and oligometastatic foci, the mean PSA value was 1.19 ng/mL, with a range from 0 ng/mL to 29.25 ng/mL.

Conclusion: The results of the data analysis at our institution are consistent with those from the currently available literature. The mean PSA value after therapy was twenty times lower compared to the pre-treatment values. Although our understanding of this disease entity remains limited and clear treatment guidelines are still lacking, a multimodal therapeutic approach has been shown to achieve a positive response and slow disease progression. Given the complexity of these patients and the potential side effects associated with multimodal treatment, it is advisable that all therapeutic decisions be made through a multidisciplinary approach.

Keywords: oligometastatic prostate cancer; SBRT; ADT; ARPI; radiotherapy; multimodal

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P18 – OUTCOMES OF TREATMENT BASED ON PRIMARY TUMOUR LOCATION IN PATIENTS WITH METASTATIC COLORECTAL CANCER AT THE DEPARTMENT OF ONCOLOGY AND RADIOTHERAPY SPLIT; DIAGNOSED BEFORE AND AFTER THE COVID-19 PANDEMIC OUTBREAK

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Background: The COVID-19 pandemic has significantly affected healthcare systems and patient outcomes worldwide(1). During the COVID-19 pandemic, left-sided colon cancers were more frequently diagnosed at advanced stages compared to pre-pandemic time(2). This phenomenon may be attributed to interruptions in routine screenings and delayed medical consultations. This underscores the impact of healthcare access, cancer symptoms based on primary localisation as well as diagnosis between patients with right-sided colorectal cancer (RCRC) and left-sided colorectal cancer (LCRC) during the pandemic(3,4). This

abstract aimed to determine if COVID-19 affected colorectal cancer care by impacting treatment options in the first line, progression-free survival, and overall survival in 2022 metastatic colorectal carcinoma (mCRC) compared to pre-COVID 2017 at the Department of Oncology and Radiotherapy Split.

Material and Methods: This was a single-centre, retrospective analysis performed at the Department of Oncology and Radiotherapy, University Hospital of Split. Patients diagnosed and managed with mCRC in 2022 were compared with patients from 2017 in terms of treatment outcomes by primary tumour location in terms of progression-free survival median (mPFS) and overall survival median (mOS). The data was analysed using Microsoft Excel tools and IBM SPSS software.

Results: In all, 111 patients were diagnosed with mCRC in 2022 compared with 107 in 2017. The primary tumour was left-sided in 79 (71.2%), and right-sided in 30 (27%), correlating with data in 2017 (LCRC 75.7%, RCRC 24.3%) and 2 (1.8%) patients had bilateral tumour location at the same time. The median age at the diagnosis was 68 years matching the median age in 2017. In 2022, a total of 101 (91%) entered the first line of treatment compared to 83 patients out of 107 (77%) in 2017. Both groups predominantly received polychemotherapy with immunotherapy: 42 (53.85%) left-sided CRC patients and 16 (51.61%) right-sided patients. The most common protocols were FOLFIRI with bevacizumab for 28 patients (27.72%) and FOLFIRI with EGFR inhibitors for 26 patients (25.74%). The median progression-free survival (mPFS) in 2022 for left-sided tumours was 9 months, while it was 7 months for right-sided tumours. The mPFS for left-sided tumours in the current study is not significantly different from 2017, where it was 12.67 for left-sided ($p > 0.05$) and 6.97 for right-sided tumours. The overall survival median (mOS) reached 22.7 months compared to 20.57 months in 2017. Although there is a slight improvement compared to 2017, the mOS is statistically significant ($p = 0.018$, $p < 0.05$).

Conclusion: This study shows that the 2022 data and results align with those of 2017, depending on tumour location and treatment regimen. The ratio of untreated patients decreased from 23% to 9%, indicating improved oncology care and fewer underserved patients. While PFS is less sensitive outcome in real life, more influenced by better diagnostics, OS as a definitive outcome showed slight improvement over five years period, from 20.5 to 22.7 months.

Keywords: COVID-19 pandemic outbreak; metastatic colorectal carcinoma; tumour location

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P19 – OVERALL QUALITY OF LIFE OF BREAST CANCER PATIENTS IN CROATIA: INSIGHTS FROM TWO HEALTHCARE INSTITUTIONS

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Background: Breast cancer is the most common malignancy among women and poses a significant public health challenge. In 2022, Croatia reported an age-standardized incidence rate of 135 cases per 100,000 women, with 3,108 women diagnosed and 612 deaths attributed to the disease(1). Early detection through screening and education can lead to stage shift and more successful treatment. With significant advancements in survival rates over the past two decades(3), there is increasing focus on how the disease and its treatment affect patients' quality of life(4), which is crucial for comprehensive care that enhances both longevity and well-being. In comparison to the overall population, breast cancer patients often face greater challenges in maintaining their quality of life(5). Therefore, we conducted a study focusing on the overall quality of life in breast cancer patients in Croatia and its comparison to the quality of life in the overall population.

Methods: This was a cross-sectional study conducted at University Hospital Center Split and Sestre Milosrdnice University Hospital Center from January 1, 2024, to December 31, 2024. It included working-age patients, ideally under 65, diagnosed with breast cancer and receiving outpatient treatment. Primary data were collected via questionnaires filled out on tablets while patients awaited their appointments. To measure overall quality of life, the EQ-5D-5L and VAS score instruments were used. Data on quality of life in the overall population was obtained from a survey conducted among Croatian citizens aged 18+ using a random two-stage stratified national representative sample. The data was collected through face-to-face interviews (F2F) with a sample size of 1,000 respondents(6). Data analysis was performed using Microsoft Excel® and Stata®.

Results: The study involved 195 female patients, with an average age of 52 years. Over 80% of participants had non-metastatic breast cancer. Nearly 97% received systemic therapy, primarily hormonal treatment, while 40% underwent chemotherapy. Most patients (89%) had surgery and 59% received adjuvant radiotherapy. Quality of life assessments using EQ-5D-5L and VAS showed that breast cancer patients reported significantly lower quality of life compared to the general population. The EQ-5D-5L dimensions (mobility, self-care, daily activities, pain, and mental health) indicated reduced functionality and well-being among these patients. Lower scores were linked to the physical and psychological burdens of illness and treatment, including side effects, fatigue, and anxiety. In terms of mobility, only 45.64% of breast cancer patients reported no difficulties compared to 72.6% in the general population. For self-care activities, 66.15% of patients reported no issues, versus 86.3% in the general population. Only 30.26% of patients could perform daily activities without problems (76.7% in the general population). Pain was more prevalent among patients, with only 27.69% reporting no discomfort compared to 58.3% in the general population. The average EQ-5D-5L score for breast cancer patients was 0.75, lower than the general population's score of 0.88. The VAS average also reflected lower subjective health ratings (64.97 vs. 81.4). Quality of life significantly differed between metastatic and non-metastatic groups ($p < 0.05$), with non-metastatic patients scoring 12% higher on EQ-5D-5L and 14.5% higher on VAS compared to their metastatic counterparts.

Conclusion: Our results indicate that breast cancer patients report significantly lower quality of life compared to the general population across all five dimensions measured by the EQ-5D-L questionnaire: mobility, self-care, daily activities, pain, and mental state. Quality of life also differs significantly between metastatic and non-metastatic patients. Future studies should focus on interventions to improve the overall quality of life in breast cancer patients.

Keywords: breast cancer; quality of life; EQ-5D-5L; VAS.

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P20 – PLATINUM-BASED CHEMOTHERAPY PLUS CETUXIMAB IN FIRST-LINE TREATMENT OF RECURRENT AND/OR METASTATIC SQUAMOUS CELL HEAD AND NECK CANCER – A REAL-WORLD OBSERVATIONAL STUDY

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Introduction: Although, pembrolizumab with or without platinum-based chemotherapy plus fluoropyrimidine is now the standard first-line treatment for patients with advanced squamous cell carcinoma

of the head and neck (aSCCHN) whose tumors express Programmed Death-Ligand 1 Combined Positive Score ≥ 1 (PD-L1 CPS), prior treatment with cetuximab and platinum-based chemotherapy has significantly improved survival in this patient group and remains the standard treatment for patients with PD-L1-negative tumors. The aim of this study is to provide real-world data regarding treatment outcomes and safety in Croatian patients treated with cetuximab and platinum-based chemotherapy.

Patients and Methods: A retrospective analysis was conducted on data from 217 patients treated at six oncology institutions in Croatia for aSCCHN (cancers of the oral cavity, oropharynx, larynx, and hypopharynx) between January 2016 and January 2022. Anonymized data were centrally analyzed. The data cut-off was August 30, 2024. We reported baseline patient characteristics, overall survival (OS), progression-free survival (PFS), and safety data.

Results: The median age at treatment initiation was 61 years (range 30–88). Eighty-four percent of patients were male, and 71% had an ECOG performance status of 0–1. At diagnosis, 82% of patients had metastatic disease, 16% had only locoregional recurrence, and 1.4% had both local recurrence and distant metastasis. Ninety-one percent of patients received the EXTREME regimen, with 86% receiving cisplatin. The median number of treatment cycles was six (range 1–9), while the median number of total cetuximab applications was 21 (range 1–170). Maintenance therapy was administered to 55% of patients. After a median follow-up of 14 months (95% CI 17–22), the median OS was 14.0 months (95% CI 12.0–17.0), and the median PFS was 6.0 months (95% CI 6.0–7.0). Therapy-related side effects were observed in 77.4% of patients for grade 1–2 toxicity and 18.9% for grade 3–4 toxicity. The most common adverse event was skin rash, though grade 3 or 4 rash was rare (3.7%). Cetuximab therapy was discontinued due to toxicity in five patients (2.3%) because of grade 4 infusion reactions, while one patient (0.5%) discontinued treatment entirely due to grade 4 fatigue.

Conclusion: Real-world data confirm the efficacy and safety of cetuximab and platinum-based chemotherapy in the first-line treatment of aSCCHN. The median OS and median PFS observed in this study were slightly better than those reported in the registration trial and aligned with findings from other real-world studies with lower reported toxicity.

Keywords: squamous cell carcinoma of the head and neck; cetuximab; chemotherapy; first-line treatment

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P21 – PROSTATE CANCER AND PROSTATIC INTRAEPITHELIAL NEOPLASIA-THE ROLE OF RADIOLOGIST

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Introduction: High-grade prostatic intraepithelial neoplasia(PIN) represents a change with malignant potential, and possible progression to clinically significant cancer. Currently, patients with this diagnosis are monitored for PSA values and periodically repeated biopsies. Numerous studies are focused on finding a non-invasive method of detecting and monitoring this groups of patients. The diffusion sequence represents the functional part of the magnetic resonance(MR) examination that reflects the Brownian motion of water molecules. It is used in combination with the ADC map.

Materials: This study includes a total of 190 men examined with a multiparametric prostate magnet(mpMR) at the Clinical Institute of Radiology KBC Osijek in the period from 1st of May 2016. until the 9th of the month of 2021. The study included patients who, after mpMR marked as PI-RADS3,4 or 5, underwent a targeted biopsy, which proved prostate cancer with a Gleason score of 3+3=6 or higher, which is unilateral without contralateral dissemination or extraprostatic spread and patients who, after a mpMR of the prostate marked as PI-RADS category 3, 4 or 5, underwent a targeted biopsy that proved PIN without cancer in same prostate.

The final number of patients with PIN is 39 with 48 foci, and of patients with prostate cancer Gleason sum 3+3=6 or more is 56 with 70 foci. The total number of patients in the control group is 54. For the negative control group of healthy patients, inclusion criteria were a biopsy finding negative for prostate cancer with a prostate MR finding of PI-RADS category 1 or 2, a balanced PSA value and a digitorectal examination finding that is not suspicious to cancer. Quantitative ADC values were measured in mpMR-observed changes, which are biopsy-proven cancer or PIN, and in morphologically normal prostate tissue.

Results: The Mann-Whitney U test showed the existence of a statistically significant difference in ADC values between cancer and PIN, cancer and normal tissue, and PIN and normal tissue.

Discussion: Although the advantage of the multiparametric examination of the prostate with magnetic resonance is an extremely high predictive value of around 90-93%, the disadvantage is still a high percentage of false positive findings, even up to 70%. One of the most common patterns of false positive findings is PIN. High-grade prostatic intraepithelial neoplasia is a problem because of the possible progression to clinically significant cancer.

Similar to previous studies, this study confirmed the role of ADC values in differentiating PIN from cancer and morphologically normal prostate tissue. The values measured in PIN are significantly different compared to the values measured in cancer and in morphologically normal tissue. This can be explained by the fact that PIN is a proliferative process of greater cellularity compared to morphologically normal

tissue, but less so compared to prostate cancer. PIN has different cytological characteristics than both tissues and different values of the proliferation index.

Conclusion: PIN, as a proliferative process of different cellularity than normal tissue and cancer, has a different ADC value, and therefore the diffusion sequence and the corresponding ADC map play the most important role in distinguishing PIN from cancer and morphologically healthy prostate tissue.

Keywords: prostate cancer; magnetic resonance imaging; PIN

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P22 – RADIOTHERAPY FOR LOCALIZED SOFT TISSUE SARCOMA: A SINGLE-INSTITUTION RETROSPECTIVE ANALYSIS

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Background: Soft tissue sarcomas (STS) are rare, heterogeneous, malignant neoplasms of mesenchymal origin, accounting for approximately 1% of adult malignancies. Treating STS remains a significant challenge and requires a multimodal approach. Surgery continues to be the cornerstone of treatment, complemented by radiotherapy (RT), particularly with advances in techniques such as intensity-modulated radiotherapy (IMRT) and volumetric-modulated arc therapy (VMAT). Historically, RT was used almost exclusively in the adjuvant setting, but recent studies support the neoadjuvant approach. This study aimed to analyze side effect profiles and differences between patients with localized STS treated with neoadjuvant and adjuvant RT.

Methods: This retrospective study analysed 32 localised STS cases treated with RT between January 2021 and December 2024 at University Hospital Centre Zagreb, Croatia. Data from medical records included tumour characteristics (histologic subtype, size, location), postsurgical pathology reports (surgical margins), RT plan details (RT technique, applied dose, and number of fractions), acute RT side effects, and postsurgical complications. We divided patients into neoadjuvant and adjuvant group, based on treatment intention.

Results: After excluding patients with missing data or ongoing treatment, 32 patients were analysed. The most common tumour site was the lower extremities (52%), followed by the upper extremities (21%). The most prevalent histologic subtype was undifferentiated pleomorphic sarcoma (38%). Median tumour diameter was 7.4 cm (2.0–21.3 cm), with most tumours being high-grade or >5 cm. Neoadjuvant RT was given to 12 patients (38%) and adjuvant RT to 20 (62%), with median doses of 50 Gy (36–50.4 Gy) and 64 Gy (50–66 Gy), respectively. RT was delivered using the IMRT technique in 53% of patients.

In the neoadjuvant group, 42% (5/12) experienced acute side effects, mostly grade 1 radiation dermatitis, with one case of grade 2. No radiation pauses, or major postoperative wound complications occurred. By contrast, the adjuvant group exhibited a higher incidence of side effects in 65% of patients (p=0.277) with 35% of patients developing grade 2-3 and 30% experiencing grade 1 dermatitis. To sum up, grade 2 side effects were observed in 35% of patients in the adjuvant group, and only in 9% of patients in the neoadjuvant group (p=0.070). Radiation pauses due to side effects were necessary for 20% of patients in the adjuvant group, but none were required in the neoadjuvant group (p=0.098).

Conclusion: A shift towards neoadjuvant RT in the treatment of localized STS is observed at our institution. Although the small patient cohort and short follow-up period limit definitive conclusions, neoadjuvant RT appeared better tolerated, aligning with literature findings. No major postoperative complications were noted. Future studies with larger cohorts and extended follow-up periods are necessary to draw more definitive conclusions and to further investigate the long-term effects of neoadjuvant RT in the treatment of localized STS.

Keywords: soft-tissue sarcomas; neoadjuvant radiotherapy; adjuvant radiotherapy; side-effects.

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P23 – REAL-WORLD OUTCOMES OF TREATMENT FOR EXTENSIVE-STAGE SMALL CELL LUNG CANCER: FINDINGS FROM A SINGLE-CENTER STUDY FROM BOSNIA AND HERZEGOVINA

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Introduction: Small cell lung cancer (SCLC) is a highly aggressive subtype of lung cancer, accounting for ~15% of all cases(1). Despite therapeutic advances, outcomes observed in everyday clinical practice often lag behind those reported in randomized trials. For more than three decades, chemotherapy has been the mainstay of systemic therapy for extensive-stage SCLC (ES-SCLC), although its success has been limited. The recent addition of chemoimmunotherapy has led to a new standard of care, offering improved treatment results and the possibility of prolonged survival for some patients with ES-SCLC(2).

Methods: This retrospective study evaluated all patients with ES-SCLC who were diagnosed or treated at a single center in Bosnia and Herzegovina from 2013 to 2023. Data on patient demographics, clinical characteristics, treatment responses, and adverse events were collected from medical and electronic health records.

Results: A total of 94 patients with ES-SCLC were included. Among them, 89.4% received first-line therapy, and 63.8% underwent cisplatin-plus-etoposide chemotherapy. Patients who received first-line treatment achieved a median progression-free survival (PFS) of five months, with a response rate of 57.5%. The median overall survival (OS) for those treated with first-line chemotherapy was seven months. Due to the limited access, only one patient in the cohort was treated with chemo-immunotherapy (atezolizumab + chemotherapy). The most frequently reported adverse event was hematologic toxicity.

Conclusions: The findings from the current study indicate that real-world outcomes for patients with ES-SCLC remain poor. Access to immunotherapy in Bosnia and Herzegovina remains limited. Additional

real-world studies are crucial for confirming the results of randomized clinical trials, and further research is needed to develop strategies that improve outcomes and address the unmet needs of this patient population.

Keywords: small cell lung cancer; extensive stage; chemotherapy; first line; real-world data

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P24 – RECURRENT SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK: A SINGLE-INSTITUTION EXPERIENCE

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Background: Recurrent head and neck squamous cell carcinoma (HNSCC) is associated with a poor prognosis, with median overall survival (OS) ranging from 6 to 15 months. The introduction of immune checkpoint inhibitors (anti-PD-1), with or without chemotherapy, has marked a paradigm shift in the treatment landscape, leading to improved survival outcomes. Prior to the immunotherapy era, management relied primarily on the EXTREME protocol or taxane-based chemotherapy in cases of cisplatin refractoriness. This summary presents our institution's experience with the management of recurrent HNSCC.

Methods: We performed a retrospective analysis of recurrent HNSCC cases at the University Hospital Centre Zagreb from August 2021 to February 2025. Data on patient demographics, treatments, recurrence patterns, and survival outcomes were extracted from electronic medical records. Histopathological features, including extracapsular extension, lymphovascular, and perineural invasion, were recorded. Median OS was calculated for locoregional and metastatic recurrence, with statistical analysis performed to assess survival differences and factors influencing outcomes.

Results: A retrospective review of our hospital's database identified 29 cases of recurrent head and neck carcinoma. Of these, 28 patients had recurrent HNSCC, while one case of recurrent head and neck adenocarcinoma was excluded. The median patient age was 64.5 years (range: 49–78 years), with a predominance of male patients (86%). Locoregional recurrence was observed in 71% (19/28) of cases, while 29% (9/28) presented with metastatic recurrence. Among patients with recurrent HNSCC, the primary tumor site was the oral cavity in 32% (9/28), the oropharynx in 25% (7/28), the hypopharynx in 21% (6/28), the larynx in 14% (4/28), the nasal cavity in 4% (1/28), and an unknown primary origin in 4% (1/28). Of the 75% (21/28) of patients who initially underwent radical surgical resection, 81% (17/21) received adjuvant therapy. Histopathological evaluation revealed extracapsular extension in 29%, lymphovascular invasion in 33%, and perineural invasion in 43% of cases. The remaining 21% (6/28) received primary chemoradiotherapy, while 4% (1/28) underwent primary radiotherapy alone. At the time of analysis, 63% (12/19) of

patients with locoregional recurrence were alive, compared to 56% (5/9) of those with metastatic recurrence. The median OS was 9 months (range: 1–42 months) for patients with locoregional recurrence and 10 months (range: 2–18 months) for those with metastatic recurrence.

Conclusion: Our center’s experience with recurrent HNSCC aligns with existing literature, emphasizing the high prevalence of locoregional recurrence and the significant impact of perineural invasion as a risk factor. Given the predominance of locoregional recurrence and the association with perineural invasion, optimizing radiotherapy techniques is crucial to improving local disease control. Incorporating perineural invasion into target volume delineation guidelines could enhance treatment precision and outcomes. Additionally, further investigation into the role of immune checkpoint inhibitors and chemotherapy, particularly in metastatic cases, could provide valuable insights into improving survival rates.

Keywords: recurrent HNSCC; overall survival; perineural invasion; radiotherapy

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P25 – RESULTS OF THE COMPREHENSIVE GENOMIC PROFILING GUIDED THERAPY – A SINGLE INSTITUTION ANALYSIS

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Background: Recently, breakthroughs in the field of advanced technologies and innovations in targeted therapies have led to higher application of comprehensive genomic profiling (CGP) in everyday clinical practice and administration of CGP-guided therapy(1). Numerous clinical trials regarding the positioning of precision oncology have been or are still being conducted with ambiguous results(2). There is a possibility of better outcomes if the application of CGP-guided therapy were to be earlier in the treatment pathway, such as maintenance therapy or as a first-line therapy(3). Croatia has a unique opportunity and availability of CGP testing for patients with metastatic disease, also with actively working Molecular Tumor Board (MTB) since 2022. This study aimed to present the results of CGP-guided therapy in the first two years.

Methods: This cross-sectional analysis was conducted in University Hospital Center Split among all patients whose tumor specimens underwent CGP testing and who were administered therapy in accor-

dance with its results. All included patients received recommendations from the Molecular Tumor Board since 2022. The data for the analysis were cut off at the time of the last visit for the patients still receiving the treatment.

Results: In total, 64 patients received recommendations from MTB for CGP-guided therapy since 2022, out of which 61 patients were treated. Median age was 64 years (IQR 52-69.5) and there were 36 (56%) female and 28 (44%) male patients. The majority of patients (45, 70%) were diagnosed with initially metastatic disease. The most commonly represented were gynecological cancers in 16 (25%) patients with endometrial and ovarian cancer being the most frequent in 8 (13%) and 6 (9%) patients, respectively. The next most common cancer types were lung cancer in 11 (17%), and prostate and breast cancer in 5 (8%) patients. The median number of previous lines of therapy was 2 (IQR 1-3), out of which chemotherapy was administered to the vast majority of patients (91%). Since 2022, 61 patients have been treated with CGP-guided therapy with 2 (3%) patients who have finished the treatment schedule and are in follow-up, 32 (52%) patients who experienced disease progression, and 27 (44%) patients currently still ongoing with the treatment. The most common CGP-guided therapy administered was olaparib, trastuzumab-deruxtecan, and pembrolizumab in 16 (26%), 10 (16%), and 8 (13%) patients with the median number of cycles 4 (IQR 3-8). The best response observed was complete response in 2 (3%), partial response in 11 (18%), and stable disease in 20 (33%) patients. Median progression-free survival was 2.8 months (IQR 1.7-7.6), while median overall survival was 24.15 months (IQR 18.45-25.87).

Conclusion: This is the first real-world analysis of the results of CGP-guided therapy in a single institution in Croatia and it has shown that half of the patients had responded to administered therapy. However, patients were heavily pretreated and as stated before, the question of optimal and timely drug administration requires further analysis on the larger scale of patients.

Keywords: comprehensive genomic profiling, CGP-guided therapy, Molecular Tumor Board

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P26 – SINGLE-CENTER REAL-WORLD OUTCOMES ON THE EFFICACY OF CHEMOTHERAPY AFTER PROGRESSION DURING PARPI IN GBRCA-POSITIVE OVARIAN CANCER

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Background: Worldwide, ovarian cancer ranks as the seventh most common cancer in women and the eighth leading cause of cancer death, with a five-year survival rate of less than 45%(1). Lately, significant breakthrough in outcomes of BRCA-mutated ovarian cancer have been achieved by the introduction of polymerase inhibitors(2). This type of drug causes the death of BRCA1/BRCA 2 deficient cells on a synthetic lethal basis. However, over two-thirds of patients develop resistance to PARPi which makes their subsequent treatment management more difficult(3). This study focuses on real-world data regarding the efficacy of chemotherapy after disease progression during PARPi exposure, trying to find the best and most efficient treatment after the progression on PARP inhibitors.

Methods: This observational retrospective study was conducted in one Croatian institution, University Hospital Center Split. It included all patients who received the approved PARP inhibitor olaparib and had disease progression on this therapeutic agent. Patients who were included in the study were diagnosed with ovarian cancer and had a BRCA 1 or BRCA 2 mutation present. The data was analyzed using Microsoft Excel descriptive statistics tools.

Results: There were 13 patients in total. All patients had high-grade ovarian cancer tumors and a BRCA 1 mutation. The median age was 52 years (range, 37-68). All patients received first-line TC chemotherapy and olaparib was used as maintenance therapy after cytoreductive surgery in 4 patients (31%) while in 9 (69%) patients it was administered after disease relapse, in second line. The majority of patients (n=11; 85%) received olaparib for at least 6 months with a median number of cycles of 12 (IQR 8.5-17).

Patients were administered the following chemotherapeutic agents as first-line after olaparib: reintroduced TC protocol, paclitaxel, doxorubicin, and etoposide in 4 (31%), 3 (23%), 3 (23%), 3 (23%) patients, respectively. Median treatment duration was 3.25 (IQR 2.3-4.35), 2.1 (IQR 2-2.26), 0.73 (IQR 0.7-1.43), and 3.2 (IQR 2.16-5) months. As second line after olaparib 12 patients received either etoposide (2 (17%)), paclitaxel (3 (25%)), gemcitabine (5 (42%)), carboplatin (1 (8%)) or doxorubicin (1 (8%)) with median treatment duration of 3.3 (IQR 0.9-5.7), 3 (IQR 3.2-5.4), 1.65 (IQR 1.2-1.9). While treatment duration for carboplatin and doxorubicin was 2.1 and 0.7 months. The third line after olaparib received 10 patients. Doxorubicin and etoposide were used in 3 (30%) patients with a median treatment duration of 0.9 (IQR 0.5-1.4) and 0.7 (IQR 0.1-0.7) months. Paclitaxel, gemcitabine, ifosfamide, and cisplatin were administered to the rest of the patients with treatment duration of 5.2, 1.6, 1.5, and 0.9 months, respectively. The best response of the third line after olaparib was observed in 3 patients treated with paclitaxel and the duration of treatment in these patients was 5 months.

Conclusion: Our results have shown that a significant number of patients with ovarian cancer and BRCA mutation have resistance to olaparib therapy (progression during two-year maintenance treatment) and poor response to any chemotherapeutic agent afterward. Besides the fact that we did our analysis on rather a small number of patients, initial findings highlight the potential role of weekly paclitaxel in the therapy of PARPi refractory ovarian carcinoma.

Keywords: ovarian cancer, olaparib progression, post progression treatment, chemotherapy

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P27 – THE EXTENT OF INFORMAL CARE PROVISION FOR BREAST CANCER PATIENTS: A STUDY ACROSS TWO CROATIAN HEALTHCARE INSTITUTIONS

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Background: Informal care, provided by family and friends rather than professionals, plays a crucial role in supporting breast cancer and cancer patients in general. With breast cancer being the most prevalent cancer among women in Croatia and advancements in survival rates over the past two decades, there is increasing attention on how illness and treatments impact patients' quality of life and their need for informal care. Informal care improves quality of life by offering emotional support, practical help, financial assistance, and medical aid. However, caregiving can be demanding, affecting caregivers' personal lives and finances, emphasizing the importance of their role in sustainable care. Being such an important topic, the extent of informal care provision for breast cancer patients and its socioeconomic effect has been extensively researched in numerous countries(5), but not in Croatia, therefore we conducted a study on that topic.

Methods: Data collection for this study involved participants completing questionnaires on tablets while waiting for their medical appointments. Conducted as a cross-sectional examination, the research took place at University Hospital Center Split and Sestre milosrdnice University Hospital Center between January 1, 2024, and December 31, 2024. The focus was on patients under 65 years of age who had been diagnosed with breast cancer and were in outpatient care. The questionnaire included elements from the ESS⁶ questionnaire, assessing informal care over 30 days, with a focus on household tasks, daily activities, caregiver leave, and patients' involvement in helping family members, reflecting their productivity and engagement. Data analysis was performed using Microsoft Excel® and Stata®.

Results: The study involved 195 women diagnosed with breast cancer, with an average age of 52. Over 80% had non-metastatic breast cancer. Nearly 97% underwent systemic therapy, primarily hormonal treatments, while 40% received chemotherapy. Additionally, 89% had surgery, and 59% received adjuvant radiotherapy, whereas only 7% were given palliative radiotherapy. In the past year, 55% of breast cancer patients

received informal care, emphasizing the substantial need for daily support. On average, these patients required 13.5 days of assistance per month, equating to about 4.5 hours of informal care per day, which places a significant burden on caregivers. Nearly 8% of caregivers took sick leave to provide care, averaging 3.8 days off, indicating that caregiving can impact their work productivity. The stage of illness significantly influenced the need for informal care. Patients with metastatic cancer required more intensive support; 62% received informal care compared to 53% of non-metastatic patients, averaging 18 days versus 15 days per month. Caregivers for metastatic patients were also more likely to take sick leave (12%) compared to those caring for non-metastatic patients (6%). Patients undergoing chemotherapy demonstrated a higher need for informal care (63.3%) compared to those not receiving chemotherapy (49.1%). Chemotherapy patients also required more days of care – 243 days annually versus 147 days for non-chemotherapy patients ($p < 0.05$). Caregivers for chemotherapy patients took more sick leave as well (5 days vs. 2 days).

Conclusion: The study highlights the significant need for informal care among breast cancer patients, particularly those with metastatic disease. Caregivers face substantial demands, often impacting their work productivity. The findings underscore the importance of addressing caregiver support to enhance both patient well-being and the sustainability of informal caregiving.

Keywords: breast cancer; informal care; quality of life; caregivers.

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P28 – THE FIRST-LINE PEMBROLIZUMAB MONOTHERAPY AND PEMBROLIZUMAB-CHEMOTHERAPY COMBINATION FOR THE MANAGEMENT OF RECURRENT/METASTATIC HEAD AND NECK SQUAMOUS CELL CARCINOMA (HNSCC): SINGLE INSTITUTION EXPERIENCE

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Background: Pembrolizumab received approval in Croatia in December 2023 for recurrent and/or metastatic head and neck squamous cell carcinoma (R/M HNSCC) as first-line monotherapy or in combination with platinum and 5FU-based chemotherapy(1). It was based on the results of the KEYNOTE-048

trial(2), which demonstrated a longer overall survival (OS) in comparison to the EXTREME chemotherapy regimen in patients with a combined positive score (CPS) ≥ 1 (3,4).

Materials and Methods: This was a cross-sectional study in which we analyzed patients with newly diagnosed metastatic or recurrent HNSCC who started pembrolizumab-containing treatment between January 1, 2024, and December 31, 2024, and were referred to the Department of Oncology and Radiotherapy, University Hospital Split. The data were analyzed using descriptive statistics methods and Microsoft Excel tools.

Results: Our cohort included 16 patients. Patient characteristics were similar to those in the KEYNOTE-048 study (Table 1). The median age of the patients was 67.5 years and most of them (87.5%) had ECOG performance status 1. The majority of them (81.25%) were former or current smokers. For patients receiving monotherapy ($n = 9$; 56.25%), 7 patients are still in the treatment. Among the patients who progressed on monotherapy, the duration of treatment was 2,07 and 4,27 months, respectively. For patients receiving pembrolizumab–chemotherapy treatment ($n = 7$; 43.75%), 6 patients are still in the treatment, while one patient progressed after less than 2 months. Immunotherapy was well tolerated. Five patients experienced side effects (31.25%)—one patient stopped the treatment due to colitis and hepatotoxicity grade 3, and 4 of them had manageable grade 1 side effects. Partial response was observed in 5 patients altogether (31.25%). At the moment of the analysis, median number of cycles of pembrolizumab was 7.5 (IQR 4-13).

Conclusion: Even though most of the patients are still in treatment, so far our data support the KEYNOTE-048 study findings and the value of immunotherapy in the first-line systemic therapy of R/M HNSCC. Analyses show that pembrolizumab was well tolerated, with relatively good management of immune-related adverse events.

Keywords: head and neck cancer; immune checkpoint inhibitors; immune-related adverse events; real-world performance; squamous cell carcinoma of head and neck

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P29 – THE USE OF ADJUVANT PEMBROLIZUMAB IN CLEAR CELL RENAL CELL CARCINOMA (CCRCC): SINGLE INSTITUTION EXPERIENCE

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Background: According to the latest epidemiological data, 948 people were diagnosed with kidney cancer in Croatia in 2022(1). While approximately one-third of patients are diagnosed with de novo metastatic disease, the majority presents with localized renal cell carcinoma (RCC (2). Clear cell RCC (ccRCC) is the most common subtype, and patients with intermediate-high or high risk of recurrence after surgery face a significant likelihood of disease relapse(3). The introduction of adjuvant pembrolizumab has significantly improved survival outcomes for RCC patients(4). The KEYNOTE-564 trial demonstrated a significant and clinically meaningful improvement in overall survival (OS) with adjuvant pembrolizumab treatment compared to placebo among patients with intermediate-high or high-risk ccRCC(4). This trial marked the first one to show a statistically significant survival benefit in this setting(4).

Materials and Methods: This was a cross-sectional study where we analyzed patients who started adjuvant pembrolizumab treatment between January 1, 2024, and December 31, 2024, and were referred to the Department of Oncology and Radiotherapy, University Hospital Split. The data were analyzed using descriptive statistics methods, with the use of Microsoft Excel tools.

Results: Our cohort included 13 patients. Patient characteristics were similar to those in the KEYNOTE-564 study. Approximately one-third (30,77%) were female, while the other two-thirds were male. The median age of the patients was 62 years and most of them had Eastern Cooperative Oncology Group (ECOG) performance status 0 (92%). Regarding the characteristics of the carcinoma, a sarcomatoid component was observed in 15,38% of the patients, while tumor necrosis was observed in 30%. The distribution of tumor grades was as follows: grade 2-46,15%, grade 3-23,08%, and grade 4-30,77%, respectively. Adverse effects of the therapy were reported in 7 patients (53,86%), leading to treatment discontinuation in 4 patients (30,77%). Out of the four, one patient had a progression of the disease. Altogether, 6 patients (46,15%) have stopped the treatment so far: 4 of them due to the toxicity, while 2 of them had progression of the disease. At the moment of the analysis, median number of cycles of pembrolizumab was 5 (IQR 4-9).

Conclusion: Thus far, our data support the KEYNOTE-564 study findings and the value of immunotherapy in the adjuvant setting, even though this was a retrospective analysis of a small patient cohort. The cohort's characteristics are consistent with those observed in the aforementioned trial. A notable proportion of patients (30,77%) discontinued treatment due to toxicity, underscoring the need for careful patient monitoring.

Keywords: carcinoma, renal cellm, immune checkpoint inhibitors, immune-related adverse events, real-world performance

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P30 – THE USE OF PEMBROLIZUMAB IN MICROSATELLITE INSTABILITY-HIGH COLORECTAL CANCER: A SINGLE-CENTER EXPERIENCE FROM CROATIA

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Background: In Croatia, colon cancer is the most commonly diagnosed malignant disease, affecting 3,600 people annually, of which around 60% are men(1). To make the best possible decision on the treatment of patients with local or metastatic disease, microsatellite instability (MSI) testing has become an indispensable molecular test for all patients with colorectal cancer, and it is an important prognostic and predictive factor(2). MSI is present in 10-15% of local or locoregional and 3-5% of metastatic colorectal cancers(3). Based on the results of the KEYNOTE-177 trial, pembrolizumab received approval in Croatia in 2021 as the first line of treatment for metastatic MSI-high colorectal cancer(4). Patients involved in clinical trials do not always accurately represent the general population(5). This analysis aims to demonstrate the efficacy of pembrolizumab in everyday practice in patients with MSI-high metastatic colorectal cancer.

Methods: A retrospective analysis was conducted at the Department of Oncology and Radiotherapy, University Hospital Split, Croatia. It included patients referred to our Clinic who were diagnosed with MSI-high metastatic colorectal cancer and who received pembrolizumab from January 1, 2021, to December 31, 2024. The data was analyzed using Microsoft Excel descriptive statistics tools.

Results: There were 16 patients in this cohort, out of which 13 were women (81.25%) and 3 men (18.75%). The median age was 68.5 years (IQR 60-88). For the majority of the patients, Eastern Cooperative Oncology Group (ECOG) status was 0 (75%), while 2 patients had ECOG status 1 (12,5%) and 2 patients had ECOG status 2 (12,5%). Right-sided colon cancer was present in 12 patients (75%), while left-sided colon cancer was present in 4 patients (25%). As a first-line therapy, 13 patients (81.25%) received pembrolizumab, of whom 8 (61.5%) are still in the treatment. Of the 5 patients who completed treatment in first-line, 3 completed treatment after receiving therapy for 2 years (60%). One patient had disease progression (20%), and one patient died after the first cycle, for an unknown reason (20%). The median number of cycles for pembrolizumab in first-line treatment was 13 (IQR 3-39). According to the results of the study for response to first-line therapy, one patient (6.25%) had disease progression, partial response occurred in three patients (18.75%), and stable disease was achieved in 7 patients (43.75%). Complete response was not achieved in any patient, and results are not available for two patients (12.5%) included in the study. Three patients (18.75%) received pembrolizumab in the second line. One of them (33.3%) completed treatment after receiving therapy for 2 years.

Conclusion: Although half of patients are still undergoing treatment, our current data aligns with the findings of the KEYNOTE-177 study and highlights the effectiveness of immunotherapy. The patients' characteristics observed in our study are similar to those in KEYNOTE-177. Pembrolizumab is generally safe and well tolerated for all lines of pembrolizumab treatment.

Keywords: carcinoma; colorectal; microsatellite instability-high; pembrolizumab

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P31 – TREATMENT OPTIONS FOR METASTATIC COLORECTAL CARCINOMA IN PATIENTS AGED ≥70 YEARS

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Background: The incidence rate of colorectal cancer increases significantly with age, and the age-standardized mortality rate for colorectal cancer is highest in older patients(1). One in four older metastatic colorectal cancer patients do not receive systemic chemotherapy due to comorbidities, chronological age, or poor performance status(2). Fluorouracil-based monochemotherapy in combination with anti-VEGF or anti-EGFR based therapy regardless of site of tumor are recommended first-line protocols for frail, elderly patients with mCRC(3,4). For patients who are not candidates for chemotherapy anti-EGFR monotherapy is a valuable treatment option(3,4). A median overall survival of 14 to 21 months is expected in clinical trial settings; however, data on clinical outcomes in older mCRC patients in real-world life are sparse(5,6). Our study aimed to present our results of treatment for patients older than 70.

Methods: The observational retrospective study was conducted at the Department of Oncology and Radiotherapy, University Hospital of Split. It included patients older than 70 years who were either newly

diagnosed with mCRC or whose disease had progressed from an early stage in 2022. The data were analyzed with descriptive statistics methods using Microsoft Excel tools.

Results: We included 45 of 49 (91.8%) consecutive mCRC patients aged ≥ 70 years who underwent systemic therapy. The median OS for these patients was 11.8 months. The median progression-free survival (mPFS) was 6.2 months. The median age was 75 years (range: 70-89), and 31%, 42%, 15% and 12% of patients had an ECOG performance score of 0, 1, 2 and 3, respectively. In total, 40 patients who received therapy (88.8%) were diagnosed with either RAS, BRAF, dMMR/MSI, HER2 or a combination thereof. The median number of systemic lines of therapy was 2 (range: 1-5). Metastasectomy and/or local ablative treatment in the liver, lung, peritoneum and/or other organs was performed in 5 patients (11%) with curative intent. In the first line, monochemotherapy was used in 15 patients (33.3 %), while 30 patients (66.7 %) received double or triple chemotherapy with or without immunotherapy. For left-sided tumors, 11 (36.7%) patients received double or triple chemotherapy with anti-EGFR, while 4 of them (13.3%) received anti-VEGF. The choice of target therapy by side in first-line therapy was associated with a trend towards better survival with anti-EGFR-based therapy in left-sided disease (anti-EGFR: 26 months versus anti-VEGF: 10 months). Although there is a slight improvement in mOS, this is not statistically significant ($p > 0.05$). In right-sided disease, only 2 of them (6.6%) received double or triple chemotherapy in combination with anti-EGFR, while 4 (13.3%) of them received anti-VEGF. Although right-sided disease showed better OS with anti-VEGF 13 months versus anti-EGFR 9 months, it showed no statistically significant difference ($p > 0.05$).

Conclusion: When it comes to finding the optimal treatment for patients over 70, an individualized, biologically rather than chronologically based decision-making process in determining the optimal type of treatment is strongly recommended to increase the chances of better outcomes.

Keywords: metastatic colorectal cancer; therapy in elder patients

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P32 – TREATMENT OUTCOMES OF PATIENTS WITH METASTATIC NON-SMALL CELL LUNG CANCER TREATED WITH ATEZOLIZUMAB – A SINGLE CENTER EXPERIENCE

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Introduction: First-line treatment of metastatic non– oncogene addicted non– small cell lung cancer (NSCLC) includes immune checkpoint inhibitors therapy in monotherapy or in combination with chemotherapy (ChT). Based on IMpower studies atezolizumab is recommended as a first-line therapy option for eligible patients with metastatic NSCLC. The aim of the study was to retrospectively analyse clinical outcomes in a population of patients with metastatic NSCLC treated with atezolizumab at University Clinical Hospital Osijek (UHC Osijek). The primary goal of the study was to analyse survival of patients treated with atezolizumab.

Methods: We collected medical records of 74 patients with NSCLC treated with atezolizumab in UHC Osijek from October 2021 till December 2024. From medical records data were collected that included patients age, sex, ECOG status, smoking status, histological type of the tumour, PD-L1 expression, results of first evaluation, route of drug administration, date of progression or death and appearance of immune-related adverse events (irAEs). Patients with PD-L1 expression >50% received atezolizumab in monotherapy, while patients with PD-L1 <50% received atezolizumab with ChT. Data of patients with a minimum of 3 cycles of atezolizumab and with results of first evaluation were only included in the analysis. Progression-free survival (PFS) and overall survival (OS) were calculated using the Kaplan Meier method.

Results: In the study data of total 56 patients were analysed. Majority of patients were men (78,6%) and were ECOG 0 (58,9%). 41,1% of the patients were smokers and 23,2% were former smokers. Adenocarcinoma was the most common histological subtype (80,4%). 29 patients (51,8%) had PD-L1 expression <50%. Two thirds of patients received atezolizumab intravenously. Results of first evaluation showed stable disease in 66,1% of the patients. Median number of infusions was 8 cycles and median follow up time was 8,6 months. Median PFS was 13,9 months (95% confidence interval [CI] 7,1-20,6 months) and median OS was 24,8 months (95% CI 14,1-35,4 months). irAEs appeared in 12,5% of the patients. Most common irAEs was hypothyroidism. Two cases of irAEs grade 3 were documented.

Conclusion: Our results showed better outcomes in comparison with clinical studies, which may be explained by inclusion criteria. Atezolizumab showed good efficacy and safety in clinical practice. Further analysis will be made on a larger patient sample.

Keywords: non-small cell lung cancer (NSCLC), immunotherapy, atezolizumab

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P33 – UPREGULATION OF METALLOTHIONEIN IN TRIPLE NEGATIVE BREAST CANCER

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Introduction: Breast carcinoma is the most common malignant disease in the female population and one of the leading causes of death among women worldwide. Hormone receptors-positive carcinomas are the less malignant and have a better clinical prognosis, whereas HER-2 positive and triple negative carcinomas are more aggressive with greater malignancy and a poorer prognosis. Metallothionein is the main protein that deliver the tissue metal, especially zinc and is support to be a new predictive factor for breast cancer.

Material and Methods: We conduct an observational retrospective study, processing and analysing patient tissue samples from the archives of the Department of Pathology and Pathological Anatomy (University Hospital Rijeka). The onset of analysis began, with previously immunophenotyped tissue biopsies of the various groups of carcinomas (Luminal A, Luminal B HER2-, Luminal B HER2+, HER2+, triple negative), using “tissue microarray” (TMA) and later, immunohistochemistry staining of these samples was performed (using metallothionein monoclonal antibodies). After that the number of metallothionein positive cells was quantified microscopically and the statistical analysis was done using student-t test. These results were compared with clinical data associated with the course and outcome of the disease.

Results: We have found the lowest metallothionein expression in the Luminal A and Luminal B HER2- breast cancers group, the highest metallothionein expression was in HER2+ and triple negative breast cancers group among the molecular subtypes. The statistical analysis of the results have shown the statistical significance difference among the metallothionein expression in the HER-2 positive and triple negative breast cancers compared to hormonal positive breast cancers (luminal A group) – $p < 0,05$. The women in group of HER-2 positive and triple negative breast cancers had poor prognosis (short time to metastasis and recurrence of the disease) when compared to group of luminal A breast cancers that had better clinical outcome.

Conclusion: The goal of this study was to show the difference in the expression of metallothionein among the different groups of breast carcinomas and to incorporate the obtained results with the clinical

course and disease outcome in order to gain a better understanding of the pathological behaviour of various breast cancer immunophenotypes.

Keywords: breast cancer; metallothionein; immunohistochemistry.

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P34 – USING ARTIFICIAL INTELLIGENCE CHATBOT TO IMPROVE THE PRESENTATION OF PLAIN LANGUAGE SUMMARIES: CROSS-SECTIONAL STUDY

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Background: Plain language summaries (PLSs) of Cochrane systematic reviews are a simple format for presenting medical information to the lay public(1). This is particularly important in oncology, where patients have a more active role in decision making(2,3). However, current PLS formats often exceed the readability requirements for the general population, thus limiting its accessibility(4). Cost-effective and more automated solutions to this problem are still lacking. Given the importance of clear and engaging health communication, this study assessed whether a large language model (e.g. Chat Generative Pre-trained Transformer (ChatGPT)) can improve the readability and linguistic characteristics of Cochrane PLSs about oncology interventions, without changing evidence synthesis conclusions.

Methods: The dataset included 275 scientific abstracts and corresponding PLSs of Cochrane systematic reviews about oncology interventions, ChatGPT-4 was tasked to make each scientific abstract into a PLS using three prompts: 1) rewrite this scientific abstract into a PLS to achieve a Simple Measure of Gobbledygook (SMOG) index of 6; followed by 2) rewrite the PLS from prompt 1 so it is more emotional; and 3) rewrite this scientific abstract so it is easier to read and more appropriate for the lay audience. ChatGPT-generated PLSs were analyzed for word count, level of readability (SMOG index), and linguistic characteristics using Language Inquiry and Word Count (LIWC) software, and compared to the original

PLSs. Two independent assessors reviewed the conclusiveness categories of ChatGPT-generated PLSs and compared them with original abstracts to evaluate consistency. Conclusion of each abstract about efficacy and safety of the intervention was categorized as conclusive (positive/negative/equal), inconclusive or unclear. Group comparisons were conducted using the Friedman nonparametric test.

Results: ChatGPT-generated PLSs using the first prompt (SMOG index 6) were the shortest and easiest to read, with a median SMOG score of 8.2 (95% confidence interval (CI): 8–8.4), compared to the original PLSs (median SMOG score 13.1, 95% CI: 12.9–13.4). These PLSs had a median word count of 240 (95% CI: 232–248) compared to the original PLSs' median word count of 364 (95% CI: 339–388). The second prompt (emotional tone) generated PLSs with a median SMOG score of 11.4 (95% CI: 11.1–12), again lower than the original PLSs. PLSs produced with the third prompt (write simpler and easier) had a median SMOG score of 8.7 (95% CI: 8.4–8.8). ChatGPT-generated PLSs across all prompts demonstrated reduced analytical tone and increased authenticity, clout, and emotional tone compared to the original PLSs. Importantly, the conclusiveness categorization of the original abstracts was unchanged in the ChatGPT-generated PLSs.

Conclusion: ChatGPT can be a valuable tool in simplifying PLSs, as medically related formats, for lay audiences. More research is needed, including research about oversight mechanisms to ensure that the information is accurate, reliable and culturally relevant for different audiences.

Keywords: health literacy; oncology; artificial intelligence; cancer

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P35 – TREATMENT OUTCOMES OF PATIENTS WITH METASTATIC NON-SMALL CELL LUNG CANCER TREATED WITH ATEZOLIZUMAB – A SINGLE CENTER EXPERIENCE

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