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VIRTUAL

2-6 December 2020

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ABSTRACTS

SCIENTIFIC SECRETARIAT

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Dear Colleagues,

It is my great pleasure to invite you to attend the 10th International Gastrointestinal Cancers Virtual Conference (IGICC 2020) to be held 2–6 December 2020. This international gastrointestinal scientific event is endorsed by international societies such as UICC.

Our conference will include all gastrointestinal, hepatobiliary, pancreatic malignancies as well as NETs, GISTs and gastrointestinal lymphomas and issues related to the care of patients with gastrointestinal cancer. The delegates will gain a greater understanding of current clinical practices in gastrointestinal malignancies with lectures by high profile international speakers, presentations of cutting-edge research and clinical practice, clinical case discussions, seminars and a wide range of submitted papers. IGICC will create opportunities for participants to present and share experiences, explore new directions and debate topics with international experts.

Considering the success of the first nine conferences 10. IGICC will be again an indispensable opportunity for education and update of the treatment of gastrointestinal cancers, providing a clear overview for treatment, with the focus on individualized, multidisciplinary approach with the participation of broad range of experts.

I cordially invite you to participate in this meeting by attending and submitting your scientific work as an abstract to be considered for presentation in IGICC 2020.

We are looking forward to meeting you for Virtual IGICC 2020.

Prof. Suayib Yalcin

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Presentations

MAINTENANCE THERAPY IN METASTATIC COLORECTAL CANCER

Ali SHAMSEDDINE

The goal of treatment in metastatic colorectal cancer should be defined weather curative or palliative beside prolongation of life. In metastatic setting many questions are raised. First what is the goal of resection of the primary treatment and which chemotherapy should we start beside the role of targeted therapy based on molecular subtypes. With the exposure to chemotherapy the patient will suffer from several adverse events some of which are cumulative and affecting quality of life like peripheral neuropathy with oxaliplatin. So in order to avoid this cumulative effect beside the toxicity on the liver, the idea of intermittent therapy, treatment holidays or maintenance therapy was studied in several randomized phase III studies. The two main strategies for maintenance therapy used the following

- Use of single agent(fluoropyrimidine) as single agent for maintenance strategy(OPTIMOX Trial)
- The addition of Bevacizumab to fluoropyrimidine in the maintenance strategy (CAIRO-3 & AIO 0207 studies)

Maintenance therapy showed significantly better duration of disease control and PFS, but not OS, than treatment holiday

- Maintenance treatment with bevacizumab showed improved PFS, but not OS (wild and Lt sided tumors)
- Fluoropyrimidine-based therapy in combination with bevacizumab showed significantly higher PFS than bevacizumab alone or observation

In RAS mutant disease maintenance therapy with 5-FU plus Bevacizumab is superior to single agent with Bevacizumab. Tumor sidedness is not a prognostic feature in RAS mutant mCRC (No difference in OS). The Benefit of maintenance strategy is most seen in RAS/BRAF wild as well as in BRAF mutated tumors.In RAS-wild tumors and maintenance with 5-FU plus Panitumumab may be considered in some patients after induction therapy. Ali Shamseddine, MD, FRCP, ESCO

EDUCATIONAL MODULE 1: FACTS AND FIGURES: EPIDEMIOLOGY AND RISK FACTORS IN GI CANCERS

Anal Cancer
Ayse DEMİRCİ

Introduction

Anal cancer is uncommon. It comprises only 2.7 percent of all digestive system malignancies (1). Although it is a rare cancer, the incidence of anal cancer has increased in the general population in the last 30 years. Increased incidence of anal cancer has been found to be associated with HPV infection, the number of lifelong sexual partners, HIV infection, genital warts, anal intercourse and smoking (2).

Anatomy and types of tumors

Anal area is divided into 2 region as anal canal and perianal zone. The anal canal is the last part of the gastrointestinal tract and is approximately 2.5- 3.5 cm long and begins where the rectum enters the puborectal ring. Tumors of this region develop from the mucosa but cannot be seen from the outside. The perianal region ends at the junction of the skin and squamous mucosa, and perianal cancers arise from the squamous junction, are visible externally and are located 5 cm around the anus. In definitions, the anal canal is divided into two as surgical and anatomical anal canal. Anatomical anal canal; It is the part between the anal verge and the linea dentata; Surgical anal canal; is the part between the anal verge and the anorectal ring. The anal canal is functionally surrounded by the external and internal anal sphincter muscles. Histologically, the anal canal is lined with squamous epithelium, unlike the rectum, and the anal margin is also limited to the skin.

The most common primary cancer of the anal canal is squamous cell cancers (SCC). Basaloid (also termed junctional or cloacogenic) carcinoma is a variant of SCC that arises from the epithelial transitional zone. (nonkeratinizing types of SCC). Adenocarcinomas originating from the glandular component of the anal canal can be seen rarely and are similar to rectal adenocarcinoma histology and are treated like rectal cancers. In addition, it can be seen rarely in melanomas and sarcomas (3).

Epidemiology

Incidance

In 2014, in Europe, epithelial anal cancers accounting for 2% of all cancers (4). Incidence is higher in women than men with a rate ratio of 1.5. In Europe during the period 2000–2007 there was a statistically increase of age-adjusted incidence from 0.8 to 1 per 100,000/year (4). Also in the USA, during the period of diagnosis 2003–2013 incidence increased on average 2.2% each year (5). About 54% of epithelial anal canal cancers occur in people aged > 65 years (4), with a crude annual incidence rate of 3.9 per 100,000. The corresponding rates for the age groups 15–24, 25–44, 45–54, and 55–64 were 0.01, 0.3, 1.4, 2.2, respectively. Adenocarcinoma showed an annual rate of 1.9 per million per year and the Paget disease was very uncommon. Seventy percent of the epithelial anal canal tumours are SCC, the annual incidence rate being 8.1 per million (4).

Survival

Survival diagnosed with an epithelial anal canal tumour during was 81% at one year and 56% at five years (4). Five-year survival was significantly better in women than men (65% vs. 58%) and reduced with increasing age: 68% (15–64 years) and 56% (65+ years). Between 1999 and 2007, 5-year survival significantly improved from 52% to 57%. Prognosis was worst for adenocarcinomas (42%) and better for SCC and the Paget disease of anal canal, 67% in both; the latter based on very few cases (21 cases) (4).

Prevalence

Prevalence of epithelial tumour of anal canal, that is the number of people living with a present or previous diagnosis of anal canal cancer. In 2008 about 48,000 persons were alive with a diagnosis of anal canal, the proportion was 9.4 per 100,000. The 5-year prevalence, that is the number of living people with a diagnosis of anal canal cancer made 5 or less years before the index date, was only 5.8 per 100,000. Of the total population with anal canal cancer, 21% are long-term survivors, that is people living with a diagnosis made 15 or more years before the index date (6).

Etiology and risk factors

Human papillomavirus (HPV)

There is convincing evidence that infection with HPV 16-18 can lead to anus cancer. In a study from Denmark and Sweden showed that high risk HPV DNA was detected in 84% anal cancer specimens (7,8); with HPV 16 detected 73% of them. Like in the cervical intraepithelial neoplasia, HPV has been shown to cause anal intraepithelial neo-

plasia, which can progress from low grade to high-grade dysplasia, and ultimately to invasive cancer (9). Consistent condom use appears to offer a relatively good protection from HPV infections (10).

Smoking

Several studies have identified a statistically significant risk of anal cancer in smokers, especially current smokers (11). In one series, cigarette smoking was associated with a significantly increased risk of anal cancer (RR 1.9 for 20 pack-years, RR 5.2 for 50 pack-years) (12). Cigarette smoking is highly associated with cervical neoplasia and is thought to act as a cocarcinogen for anogenital SCC (13).

This relation is also supported by the finding that lung cancer is twice as frequent in patients with a history of anal cancer (14).

Frisch and colleagues speculated that the findings of a strong correlation between status as a current smoker and the risk of anal cancer may be due to the lack of adjustment for confounding by sexual factors and that smoking may represent an important risk factor only among women who are not oestrogen deficient (premenopausal women) (15). Phillips et al. studied the smoking-related DNA adducts in samples of anal epithelium from haemorrhoidectomy specimens from current smokers and agematched life-long non-smokers (16).

Sexual activity

Initial reports suggesting an increased incidence of the disease in homosexual men provided a link between sexual activity and the development of anal cancer.

In an early case-control study, Daling and colleagues found that in men a history of receptive anal intercourse (related to homosexual behaviours) was strongly associated with the occurrence of anal cancer. They also reported that men with anal cancer were more likely to never have married and to not have been exclusively heterosexual. Women with anal cancer were more likely than controls to have a history of genital warts (relative risk [RR] 32.5), herpes simplex 2 (RR 4.1), or chlamydia trachomatis (RR 2.3), while men with anal cancer were more likely than controls to have never been married (RR 8.6), to have engaged in homosexual sexual activity (RR 50), to have practiced receptive anal intercourse (RR 33), and to have a history of genital warts (RR 27) or gonorrhea (RR 17) (17). In subsequent studies showed closely relationship between anal cancer and receptive anal intercourse in men (18). A second case-control study in heterosexuals compared 417 patients with anal cancer, 534 patients with rectal cancer, and 554 normal controls (19). In multivariate analysis, the strongest risk factors for anal cancer in women were 10 or more lifetime sexual partners (RR 4.5) and a history of anal warts (RR 11.7), genital warts (RR 4.6), gonorrhea (RR 3.3), cervical dysplasia (RR 2.3), or sexual partners with a history of a sexually transmitted disease (RR 2.4). A history of engaging in receptive anal intercourse before the age of 30 and at least two anal intercourse partners were also significant risk factors in women. Among heterosexual men, multivariate analysis revealed significantly elevated risks of anal cancer with 10 or more lifetime sexual partners (RR 2.5), a history of anal warts (RR 4.9), or a history of syphilis or hepatitis (RR 4.0). In data from the Danish Cancer Registry demonstrated a strong relationship between cervical cancer and anal cancer in women (20).

Immunosuppression

Chronic immunosuppression is a risk factor for several types of SCC, including those of anal canal. This risk is likely to be a result of persistent HPV infection (21). In recipients of renal allografts, persistent HPV infection has been associated with a 100-fold increased risk of anal cancer (9). Daling and colleagues evaluated the relation between anal cancer and using of corticosteroid. The risk for anal cancer associated with corticosteroid use was found to be elevated significantly among men (OR: 3.2), particularly among men who were not exclusively heterosexual (OR: 5.6), and among women (OR: 3.2). (18).

HIV

HIV-positive patients are more likely to be infected with HPV and they are more likely to have HPV-associated squamous intraepithelial lesions, particularly high-grade lesions (22). Several studies have analysed the association between HIV infection and anal cancer however it is still unclear whether the HIV infection itself has a direct effect on the development of anal cancer (21). It has been suggested that, because of the Highly Active Antiretroviral Therapy (HAART) therapy, patients are living longer letting more time for transformation and development of anal cancer and dysplasia (23). In this case the cancer would not be associated with HIV, but with the persistent HPV infection. From the evidence available up to now it seems that further studies are necessary to establish the true nature of the relationship between HIV infection and anal cancer (22).

Screening

Similar to the cervical Papanicolaou smear, anal swabs for cytology are possible screening methods for anal squamous intraepithelial lesions (ASIL) and anal cancer (22). At the moment, there is no data in favour of screening programmes in anal cancer. There are not randomised trials on anal dysplasia screening and few trials evaluating treatment strategies for HIV/AIDS high-grade dysplasia. The currently available data does not support the implementation of a screening programme for anal intraepithelial neoplasia and anal cancer in homosexual men and further research is needed to identify improved methods for preventing, detecting, and treating anal dysplasia (23)

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EDUCATIONAL MODULE 4: IMMUNOTHERAPY IN GASTROINTESTINAL CANCERS

Cancer Vaccines
Hacer DEMİR

Cancer Vaccines

Cancer is the second most common cause of death after cardiovascular diseases in the world, and the mortality rate continues to increase despite developing treatment modalities[1]

Recently, the use of immunotherapy in cancer treatment has started to come to the fore more and good results have begun to be obtained with the use of immune checkpoint inhibitors alone or combined with radiotherapy/chemotherapy.[2]

Cancer vaccines are a promising instrument for the treatment of cancers

Cancer vaccines aim to stimulate the immune system to be able to recognize cancer cells as abnormal and destroy them.

There are two major categories that cancer vaccines fit into;

Preventive vaccines

These are used to prevent cancer developing in healthy individuals like hepatitis B virüs (HBV) and Human Papilloma virüs(HPV) vaccines

Therapeutic cancer vaccines

(These vaccines include tümör antigens to Threat existing cancer by strengthening the natural defenses against cancer)

Each type of cancer vaccine works on the same basic idea that the vaccine, which contains tumor cells or antigens, stimulates the patient's immune system, which procedures special cells that kill cancer cells and prevent relapses of cancer [3]

Different from traditional preventive infectious diseases vaccines, cancer vaccines stimulate the immune system, especially CD8 T cells, to fight against cancer. The common vaccine strategies mainly consist of dendritic vaccines, peptide vaccines, genetic vaccines, tumor cell vaccines, viral vector vaccines [456].

Dendritic cell vaccine

Dendritic cells (DC) are the most efficient antigen-presenting cells which sensitize the T cells to start immune responses. The tumor can suppress the maturity and promote apoptosis of DC and this is the reason why DC can be one of the cancer vaccines. The first DC vaccine trials began in 1995 and despite the advances, there are many challenges to be solved. Dc based vaccines serve as exogenous antigen-presenting cells to overcome tumor suppression and to stimulate tumor antigen-specific T cell responses against tumor. The first FDA-approved vaccine, sipuleucel-T (Provenge), is a dendritic cell vaccine and has been shown to improve survival in patients with advanced prostate cancer in multiple phase 3 studies.[7]

Peptide vaccines

The tumor-associated antigens (TAAs) peptides can be recognized by T cells, followed by an active immune response of the host immune system which may destroy the tumor cells. TAAs peptides are used to make cancer peptide vaccines. Peptide vaccine is relatively simple, safe, and easily produced approach in cancer vaccination. But the single peptide vaccine is with limited usage because some TAA peptides may be lost or presented in different stages with the progression of the tumor. Therefore, multi-peptide vaccines targeting multiple TAA epitopes has been developed.[8910]

Genetic vaccines

Genetic vaccines use viral or plasmid DNA vectors carrying the expression cassette to deliver the coding region of antigens for the vaccination.

Bits of DNA from the patient's cells are injected into the patient, which instructs the other cells to continuously produce certain antigens.

This DNA vaccine increases the production of antigen is which forces the immune system to respond by producing more T cells but they can induce CD8 T cell response against tumor antigens but fail to generate satisfactory CD4 T cell responses.

The idea of these vaccines is that the body would be provided with a constant supply of antigens to allow the immune response to continue against cancer. Like peptide vaccines, DNA and RNA vaccines are simple and inexpensive production.

RNA vaccines are safer and more advantageous than DNA vaccines because, unlike RNA, they are not integrated into the genome, so they do not have oncogenic potential.[1112]

Viral vector vaccines

Viral based vaccine is naturally immunogenic and can efficiently infect DCs, with oncolytic virus vaccine being

able to directly kill tumor cells. An advantage for virus based vaccines is that the immune system has evolved to efficiently respond to the virus, whit the innate and adaptive mechanisms and this response is strong and durable.

The most commonly used viral vaccine vectors have been derived from poxviruses, adenoviruses, and alphaviruses. Attenuated or replication-defective forms of these viruses are used for safety[13]

Tumor Cell Vaccines (Autologous/Allogeneic tumor Cells)

Autolog and allogeneic tumor cells were one of the first types of tumor vaccines to be used. The main advantage of tumor cell vaccines is that they have all the relevant tumor antigens needed by the ımmune system to mount an effective antıtumor response. A second advantage is that tumor cell-based immunization allows the development of cancer vaccines without knowing the specific antigens.

These vaccines include all known tumor specific mutations and could take the form of killed tumor cells[14]

How to prepare autologous tumor vaccines;

- Cancer vaccines are made from the person's own cancer cells or from cells that grown in a laboratory
- The cancer cells are treated with heat or radiation, then they become inactive an can be used for vaccine preparation.
- Certain proteins may then be taken from the cancer cells and used to make a cancer vaccine.
- Often a cancer vaccine will also contain a substance that are already known to boost the immune system, such as BCG

Limitations of cancer treatment vaccines

- Cancer cells suppress the immune system. That is how cancer is able to develop and grow in the first place. Researchers are using adjuvants in vaccines to try to fix this problem.
- Cancer cells develop from a person's own healthy cells. As a result, the cancer cells may not "look" harmful to the immune system. The immune system may ignore the cells instead of finding and destroying them.
- Larger or more advanced tumors are hard to get rid of using only a vaccine. This is one reason why doctors often give people cancer vaccines with other treatments.
- People who are sick or older can have weak immune systems. Their bodies may not be able to produce a strong immune response after vaccination. That limits how well a vaccine works. Also, some cancer treatments may damage a person's immune system, limiting its ability to respond to a vaccine.
- Because of these reasons, some researchers think cancer treatment vaccines may work better for smaller tumors or early-stage cancers.

Conclusion

In recent years, there has been a rapid development in cancer immunology and immune therapies. Understanding the escape mechanisms of cancer cells from the immune system has enabled the development of many new treatment methods in this field. In this context, because cancer vaccines stimulate the immune memory, it is an alternative immunotherapy that can be safe, specific, long-term responsive, and possibly cure.[15]

Although it is predicted that the combined use of standard chemotherapy, radiotherapy checkpoint blockade with immunotherapy and cancer vaccines will enter into routine use in the near future, further studies are needed in this area.

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EDUCATIONAL MODULE-3: PRINCIPLES OF SURGERY IN GASTROINTESTINAL ONCOLOGY

Pancreatic Surgery

Anil DİNCER

Pancreatic lesions are classified as solid and cystic. Solid tumors consist of endocrine and exocrine subtypes. Pancreatic ductal adenocarcinoma (PDA) is the most seen type of pancreas solid tumors. Mucinous neoplasms (MCNs) and, intraductal papillary mucinous neoplasms (IPMNs) are the most important types of pancreas cystic neoplasms in terms of surgery. 8th edition of Cancer Staging Manual of PDA which was published by The American Joint Committee on Cancer (AJCC) is used for PDA staging. Some criteria have been determined for clearly resectable and borderline resectable tumors. The most important step is R0 resection on treatment. Any tumor meeting borderline criteria be considered for downstaging with a multidisciplinary neoadjuvant strategy. According to studies in the literature, vein resection should always be performed if needed to achieve a negative margin. Some authors have proposed the routine use of diagnostic laparoscopy. Nodal positivity in pancreatic cancer greatly affects the long-term prognosis of patients after pancreaticoduodenectomy (PD). Debate continues about whether to perform extended lymphadenectomy or not. In the light of years of experience, laparoscopic PD can be performed safely and in accordance with oncological principles. Surgery is recommended for all MCNs and mainduct-IPMNs but frozen biopsy is recommended only for IPMNs.

EDUCATIONAL MODULE-3: PRINCIPLES OF SURGERY IN GASTROINTESTINAL ONCOLOGY

Gastroesophageal Surgery
Nezih AKKAPULU

Gastroesophageal malignancies are needed for a multidisciplinary approach, and surgery is the contemporary mainstay treatment modality. This module aims to give information about basic surgical principles such as preoperative workup, surgical options and discuss debating points for esophageal tumors, gastroesophageal junction tumors, and gastric tumors separately in light of recent literature. There is a lot of defined surgical and anastomotic technique with variable results for gastroesophageal tumors. According to high-quality, evidence-based data, whether esophageal or gastric, either minimally invasive or open, upper gastrointestinal oncologic surgery principles are obtained the R zero resection and adequate lymph node dissection like the rest of the oncologic surgery.

EDUCATIONAL MODULE-3: PRINCIPLES OF SURGERY IN GASTROINTESTINAL ONCOLOGY

NET/GIST Surgery
Omer CENNET

Pancreatic neuroendocrine tumors (PNET) originate from the islet cells of the pancreas. They are rare lesions and heterogeneous tumors in terms of their clinical presentation. On the other hand, Gastrointestinal (GI) NET is defined as neuroendocrine tumor originating anywhere in the gastrointestinal system from the stomach to the rectum. GI NETs are most commonly found in the small bowel.

PNET can be presented as both slow-growing/localized tumors or aggressive neoplasms presenting at diagnosis with invasion or distant metastases. Surgical resection represents the only curative option of PNET treatment. However, the surgical management includes a wide range of options, ranging from parenchyma-sparing operations to radical interventions including liver resections. Also, small and asymptomatic PNET usually display an indolent biological behavior, a conservative wait and see approach can be recommended.

Small bowel neuroendocrine tumors (SB NETs) are becoming more common in surgical practice. Although guidelines regarding surgical treatment for SB NET are available, the surgical options must be individualized

The primary treatment and only option for cure in non-metastatic GIST remains complete surgical removal. GIST surgery should follow the same basic principles of oncological surgery, but certain biological properties of GIST alter some features of the surgical approach

EDUCATIONAL MODULE 3: PRINCIPLES OF SURGERY IN GASTROINTESTINAL ONCOLOGY

Colorectal Surgery
Timucin EROL

Colorectal cancer is the most surgically curable gastrointestinal system cancer. Surgical removal of colon cancer represents the only curative option, and R0 resections, particularly in metastatic situations, dramatically impacts long-term survival. Here in this module we will summarize surgical principles of colorectal cancer treatment from a historical perspective to future directions. Development of Complete Mesocolic Excision (CME), Total Mesorectal Excision concepts , treatment options for early rectal cancers and minimal invasive surgery will be the main focus of this module.

EDUCATIONAL MODULE 4: IMMUNOTHERAPY IN GASTROINTESTINAL CANCERS

Combination of Radiotherapy with Immunotherapy

Görkem TÜRKKAN

Introduction:

Radiation cause direct cytotoxic effects (DNA damage and tumor cell death) on cancer cells. Double-stranded DNA (dsDNA) accumulation occurs in the cytosol and triggers a cellular immune response. Cytosolic dsDNA binds to cyclic GMP-AMP synthase (cGAS) and thus, activate Stimulator of interferon genes (STING) which may lead to the increased production of interferon-β (IFN-β) and other cytokines through IFN-I/NF-κB pathways. On the other hand, radiation increases the expression of major histocompatibility complex class I (MHC-I) molecules, increases the expression of T-cell receptors in CD8 T-cells, stimulates dendritic cell maturation, increases danger signals and tumor associated antigens (TAA). TAAs are taken up by antigen presenting cells (APCs) and are presented on MHC-I molecules. In consequence of successive interactions, APCs in tumor draining lymph nodes and thus, CD8+ T-cells get activated. T-cell mobilization against cancerous cells may appear. Finally, abscopal effect may occur as a result of the increased release of proinflammatory cytokines and chemokines following radiation [1].

Immunogenic modulation (through the induction of MHC-I expression, NKG2D receptor ligands, immune checkpoint molecule ligands, TNFRSF member Fas), T-cell priming (through ATP secretion, HMGB1 alarm, calreticulin interaction, radiation-induced IFNs, C5a/C3a activation), leukocyte infiltration (through vascular changes, adhesion molecule increase, chemokine induction) and microenvironment modulation (cytokine secretion, modulation of tumor infiltrating leukocytes) are major effects of radiotherapy on the immune system [2].

Both low-dose and high-dose radiation have immunostimulatory and immunosuppressive effects. It's widely accepted that stereotactic body radiotherapy (SBRT) and hypofractionated radiotherapy can provide higher immunestimulatory response than conventional fractionated radiotherapy (2 Gy/day). Radiation may generate immuneinhibitory effects by upregulating PD-L1 expression or secreting cytokines such as TGF-β, which contributes to radio-resistance. Radiotherapy dose per fraction should be between 5-12 Gy when combined with immunotherapy. Dose per fractions of 12-18 Gy have been shown to be able to turn off radiotherapy induced immune stimulation through the DNA exonuclease TREX upregulation resulting in cytoplasmic dsDNA degradation [3,4].

SBRT alone may provide the necessary signals for antitumor effect, but may generate weak antitumor effect and extremely rare abscopal responses. Therefore, the clinical rationale for the combination of SBRT and immunotherapy is augmenting and maintaining the proimmunogenic antitumor effects that can be seen with SBRT alone. Vaccines, checkpoint inhibitors (anti CTLA-4, anti PD-1, anti PD-4, anti TIM-3), costimulatory agonists (anti-OX40, anti-CD27, anti-CD40, anti-4-1BB, anti-GITR) and exogenous cytokines (IL-2, IL-7, IL-12, IL-15, IL-21, GM-CSF) can enhance local and systemic immune response [5].

In brief, while radiotherapy can reduce tumor burden and potentiate local effect of immunotherapy, immunotherapy may boost radiotherapy induced immune activation, block immunosuppressive effects of radiotherapy and eliminate microscopic disease.

Clinical Evidences:

Esophageal (19%) and gastric cancers (27%) can express high levels of DNA damage response gene alterations. These may lead to resistance to chemotherapy and radiotherapy, but may sensitize tumors to immunotherapy due to increased mutational burden. Irradiation can cause an upregulation of PD-L1 expression in human EC cells and inhibition of PD-L1 was suggested as a potential strategy for the treatment of esophageal squamous cell carcinoma (SCC). The potential benefit of the combination of neoadjuvant concurrent radiochemotherapy (total radiotherapy dose 44.1 Gy/21 fr) and pembrolizumab was assessed in 28 patients with esophageal SCC. Pathological complete response (pCR) rate was 46.1% and a trend toward better disease free survival (DFS) was seen in the pCR group (p = 0.1). Safety and clinical activity of pembrolizumab and multisite SBRT was investigated in patients with advanced solid tumors, including gastrointestinal system (GIS) cancers and esophageal carcinoma. 94.5% (75/79) of the patients had SBRT (30-50 Gy/3-5 fr) to 2 different metastases. The combination treatment was well tolerated with accepted toxicity. At present, the literature has very limited data for gastric cancers, with only a few of case reports. As a result, the combination therapy provided promising disease control and toxicity results both for metastatic and non-metastatic esophageal cancers. Several ongoing clinical trials are investigating the response and progression free survival (PFS) rates in this patient groups (NCT04210115, NCT03777813, NCT03437200, NCT03453164).

Liver tumors acquire radio-resistance after radiotherapy with the upregulation of PD-L1/PD-1 axis leading to CD8 T-cell exhaustion and finally, tumor escape. For hepatocellular carcinoma (HCC), preclinical and clinical data have shown that SBRT combined with anti PD-L1 increased PD-L1 expression via IFN-γ/STAT3 signaling and provided higher survival rate than the use of these treatment options either alone. Chiang et al. notified the first study that has combined SBRT and anti-PD-1 therapy in patients with unresectable locally advanced HCC. Of the 5

patients, 2 had complete response and 3 had partial response. The 1-year local control (LC) and overall survival (OS) rates were 100% [6]. Good treatment response can be obtained in hepatobiliary tumors with the combination of radiotherapy and immunotherapy. But, more evidence is needed because the literature involves small number of studies with low number of patients. There are some ongoing clinical trials mainly evaluating overall response and PFS rates with the use of radiotherapy and immunotherapy combination in patients with hepatobiliary tumors (NCT03316872, NCT03482102, NCT03898895).

Pancreatic cancer has poorly immunogenic microenvironment because of the dense desmoplasia and immune infiltrate phenotype excluding CD8 T-cells. Immunotherapy may convert pancreatic cancers to immunogenic tumors. Preclinical data showed that radiochemotherapy combined with anti-CD40 had stronger effect on tumor regression than either alone. Lin et al. evaluated safety and efficacy of chemoimmunotherapy with oregovomab, followed by SBRT with nelfinavir in patients with locally advanced pancreatic cancer. The trial was closed early due to the use of gemcitabine/leucovorin/fluorouracil regimen as chemotherapy. Median survival was 13 months. Although not significant, patients who received 7 doses of oregovomab had higher survival than patients who received less than 7 doses of oregovomab (21 months vs. 10 months, p=0.172). Re-assessment using modern chemotherapy was recommended. The safety of immune checkpoint inhibitors (durvalumab or durvalumab plus tremelimumab) with SBRT (8 Gy/1 fr or 25 Gy/5 fr) was assessed in patients with metastatic pancreatic ductal adenocarcinoma. Durvalumab with SBRT (5Gy x 5) treatment group provided the highest survival rate and a modest treatment benefit was reported [7]. For locally advanced pancreatic cancers, promising results were obtained in the definitive setting. Overall survival advantage may be seen with the use of modern chemoimmunotherapy and SBRT combination in studies with higher numbers of patients. The use of fractionated SBRT and mono-immunotherapy provided a modest treatment benefit in patients with metastatic pancreatic cancer.

Immunotherapy has been shown to be not very effective in mismatch repair (MMR) proficient and microsatellite instability (MSI)-low metastatic colorectal cancer (mCRC). Therefore, immunotherapy combined with radiotherapy is increasingly being tested in this group of patients. The safety and abscopal effects of pembrolizumab after radiotherapy or radiofrequency ablation (RFA) was investigated in patients with MMR proficient mCRC. While no response was obtained in the RFA arm, 1 patient had abscopal effect in radiotherapy arm. Radiotherapy arm is ongoing. Floudas et al. also evaluated the effects of combining immunotherapy (AMP-224) with SBRT and low-dose cyclophosphamide for patients with mCRC [8]. No clinical benefit was observed. Dual immune checkpoint blockade (ICB) after radiotherapy was also investigated in patients with MSI-low mCRC progressing on chemotherapy. Lee et al. reported the results of their study including 33 patients who received SBRT (27 Gy/3fr) followed by tremelimumab plus durvalumab. They observed 2 partial responses of 44 weeks and more among 20 evaluable patients. In an another study, disease control rate was 17.5% with the use of radiotherapy folllowed by ipilimumab plus nivolumab. Median disease control time was 77 days (252 days for those with disease control) and combined treatment showed durable activity. As a result, more research is needed to effectively evaluate the effects of radiotherapy and immunotherapy combination in mCRC. Radiotherapy combined with dual ICB seem to be safe, feasible and more efficient. There are several ongoing clinical trials evaluating response rates in both metastatic and non-metastatic CRC (NCT03102047, NCT02888743, NCT03104439, NCT02437071, NCT03921684).

Anal cancers are immunogenically hot tumors that are highly associated with HPV infection. Therefore there is a strong rationale for the combination of immunotherapy with radio(chemo) therapy. PD-1/PD-L1 pathway blockade was shown to be feasible and efficient in the treatment for recurrent/metastatic anal cancers. Balermpas et al. investigated prognostic factors in anal cancer patients who received definitive radiochemotherapy and their findings showed a strong rationale for the addition of immunotherapy to the standard treatment. On multivariate analysis, better LC and DFS rates were reported in patients with higher HPV viral load, higher CD8+ and PD-1+ expression. Higher HPV viral load were also associated with improved overall survival. The safety and the efficacy of the combined treatment of Listeria based vaccine-immunotherapy (ADXS11-001) with standard radiochemotherapy was investigated in locally advanced anal cancer patients [9]. Nine of 10 patients completed the whole treatment and also had clinical CR. Additionally, 89% (8/9 patients) of the patients were progression-free at a median follow-up of 42 months. As a result, anal cancers are immunogenically hot tumors and the integration of immunotherapeutic agents to standard treatment can improve LC and OS. Two randomized clinical trials with primary end points of DFS are ongoing (NCT04230759, NCT03233711). The results of these studies may provide strong evidence for the addition of immunotherapy to standard definitive radiochemotherapy.

From the viewpoint of radiation oncologists, many aspects need to be clarified regarding the use of radiation in combination with immunotherapy. Radiotherapy treatments should be optimized in terms of dose-fractionation scheme (8 Gy per fraction?), treatment timing (concurrent, sequential, splitted?), treatment duration, treatment volume (exclusion of draining lymph nodes because of APC death?, irradiation of all/many sites), treatment technique (effects of particle therapies, magnetic resonance guided radiotherapy?). Additionally, immune checkpoint inhibitors may not be the best partners for radiotherapy and long term clinical data is needed for the cumulative toxicity risks. Lastly, biomarkers or genetic tests are needed to be able to choose patients who may benefit from the combined treatment.

Conclusion

As a conclusion, ,in the future, radio(chemo)therapy combined with immunotherapy can be a game changer in the management of GIS cancers. But, increased and improved evidence is needed to better understand the predictors of response, mechanisms of treatment resistance and biomarkers of toxicity.

Keywords: radiotherapy, immunotherapy, gastrointestinal system cancers.

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Oral Presentations

OP-01

HIGH PREVALENCE OF MALNUTRITION AND SARCOPENIA IN NEWLY DIAGNOSED CANCER PATIENTS: MULTICENTER, CROSS-SECTIONAL STUDY

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Purpose: Clinical care of the cancer patients mostly focuses on the medical management with less attention on disease related malnutrition and sarcopenia that even exist at the time of the diagnosis. Both sarcopenia and malnutrition are frequent in cancer patients and are associated with treatment related toxicity, decline in quality of life and reduced survival. The aim of this study was to examine the prevalence of sarcopenia and malnutrition in patients with newly diagnosed gastrointestinal system cancer.

Methods: A total of 116 patients with newly diagnosed gastrointestinal system cancer who were admitted to oncology outpatient clinics in three different tertiary hospital were enrolled.Nutritional status of the patients was assessed using Patient-Generated Subjective Global Assessment (PG-SGA) and Malnutrition Universal Screening Tool (MUST) tool. Demographics, clinical characteristics, anthropometric and biochemical parameters were recorded. Body composition was evaluated by bioelectrical impedance (BIA), strength was assessed by hand grip dynamometer and the physical performance was determined by the 6-meter walking speed. Sarcopenia was defined as low muscle mass, with either the presence of low grip strength or low physical performance.

Results: A total of 77 male patients (66.4%) and 39 female (33.6%) with mean age of 58.9 ± 12.9 years and average BMI of 25.7 ± 4.9 kg/m2 . Although the mean BMI values of the participants were not low, 28 (24.1%) of 116 patients had low muscle mass, 49 (42.2%) of 116 patients had low hand grip strength and 77 (66.4%) of 116 patients had low gait speed. According to the PG-SGA and MUST 43.1% and 66.4% of the participants were classified as severely malnourished while 30.2% and 13.8% were classified as moderately malnourished, respectively. Total scores of the both screening tools were statistically different between normal and malnourished patients. Sarcopenia was observed in 16.4% (n=19) of the participants.

Conclusions: Malnutrition and sarcopenia in cancer patients are a big concern. According to our results one-fifth of patients had sarcopenia and more than half of the patients were malnourished at the time of cancer diagnosis. In our study we demonstrate that despite the normal BMI value, malnutrition and sarcopenia are relatively high in cancer patients. It is known that, timely nutrition interventions prior to the initiation and during cancer therapy is beneficial to reduce the cytotoxic effects and associated complications. Incorporating early nutritional screening to oncology routine clinical practice to identify the malnourished patients with cancer prior to the initiation of cancer treatment is essential.

Keywords: malnutrition, sarcopenia, cancer

OP-02

SCREENING FOR NUTRITIONAL STATUS AMONG GASTROINTESTINAL CANCER PATIENTS IN THE OUTPATIENT SETTING

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Rationale: Early recognition of malnutrition risk via screening of nutritional status and timely provision of appropriate nutritional support are important components of multifaceted cancer.[1-3] This cross-sectional study, aimed to determine nutritional status among gastrointestinal (GI) cancer patients admitted to multiple outpatient specialty clinics, was conducted in collaboration with Turkish Society of Clinical Enteral and Parenteral Nutrition (KEPAN) as an awareness-raising project within the context of World Nutrition Day.

Methods: A total of 375 patients with GI cancer were screened for nutritional status via Nutritional Risk Screening (NRS) 2002 during their admission to 25 outpatient specialty clinics across Turkey, including medical oncology (MO, n=7), general surgery (GS, n= 6), radiation oncology (RO, n=6), geriatrics (GR, n=4) and neurology (NR, n=2) clinics. Overall, 179(47.7%) patients were GS, 105(28.0%) were MO, 80(21.3%) were RO, 6(1.6%) were GR and 5(1.3%) were NR outpatients. Malnutrition risk was assessed based on NRS 2002 scores of ≥3.

Results: Overall, 178(47.5%) of 375 GI cancer outpatients were at risk of malnutrition (NRS 2002 scores ≥3) with no significant difference in the prevalence of malnutrition risk according to specialty (GS: 46.9%, MO: 48.6%, NR: 45.0%, RO: 40.0%, GR: 83.3%, p=0.482). Based on 361 patients with available data, 61.8% of patients were newly-diagnosed cancer patients and 38.2% were former patients, while the percentage of newly-diagnosed cancer patients was significantly higher in GS than in MO clinics (72.3 vs. 45.7%, p<0.001). Prevalence of malnutrition risk was similar between newly-diagnosed (50.7%) and former

(41.3%) cancer patients, regardless of the outpatient specialty. Body mass index (BMI) values were significantly higher in GI cancer patients who admitted to NR outpatient clinics compared to those admitted to other outpatient clinics (median 32 kg/m² vs. ≤24.7 kg/m², p=0.033). Mean(SD) BMI values were significantly lower in patients with vs. without malnutrition risk (23.2(4.6) vs. 25.9(5.2) kg/m², p<0.001). No significant difference was noted between newly-diagnosed and former cancer patients in terms of BMI values (mean(SD) 24.2(4.4) vs. 25.3(6.2), p=0.206).

Conclusions: This screening study revealed malnutrition risk and the need for nutritional intervention in nearly one out of two gastrointestinal cancer outpatients, regardless of the outpatient specialty or date of primary diagnosis. The high risk of poor nutritional status noted among gastrointestinal cancer outpatients in the current study seems notable given the association of a possible future hospitalization with a further increase in the malnutrition risk. Accordingly, the physician's awareness of nutritional screening seems crucial given the likelihood of malnutrition risk at the time of initial diagnosis and the contribution of appropriate multimodal nutritional intervention in the favorable long-term clinical outcome.

Keywords: Gastrointestinal cancer, nutritional status, screening, outpatient setting

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OP-04

RETROSPECTIVE ANALYSIS OF SORAFENIB TREATMENT IN ADVANCED-STAGE HEPATOCELLULAR CARCINOMA: A SINGLE CENTER EXPERIENCE

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Introduction: Local treatments are an effective methods for suitable patients in Hepatocellular Carcinoma (HCC). However, prognosis is poor in patients for whom local treatments are not suitable. Sorafenib is shown to be effective drug in patients with indication of systemic treatment as a primary care in HCC. In this study, we aimed to retrospectively evaluate the overall survival and progression-free survival of patients diagnosed with HCC who were treated with sorafenib in our clinic.

Material and Methods: Sixty six patients followed up with a diagnosis of hepatocellular carcinoma in our clinic between 2011 and 2020 were included in our study. The patients were examined in terms of clinical, laboratory and radiological features. Overall survival and progression-free survival under sorafenib treatment were evaluated.

Results: The majority of the patients (89.39%) were men. 51.5% of the patients included in our study were below 65 years old at the time of starting sorafenib. The overall survival of the patients after starting sorafenib was 5 months, and the progression-free survival time was 4 months (Figures 1 and 2).

Discussion: Systemic cytotoxic treatments do not work in HCC. Sorafenib, a tyrosine kinase inhibitor, suppresses tumor cell proliferation. With the emergence of data showing that sorafenib improves survival in HCC, it has been used in primary care. In our study, which reflects real-life data, overall survival and progression-free survival times were found to be similar to the literature. Despite the treatment with sorafenib, the prognosis is poor. More effective new agents are needed in clinical practice.

Keywords: Hepatocellular Carcinoma, Sorafenib, Overall Survival, Progression Free Survival

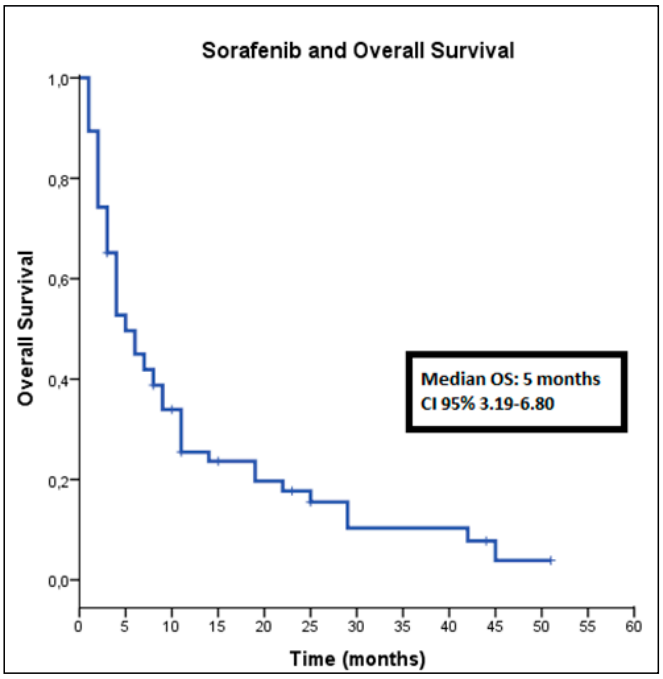

Figure 1. Sorafenib and Overall Survival

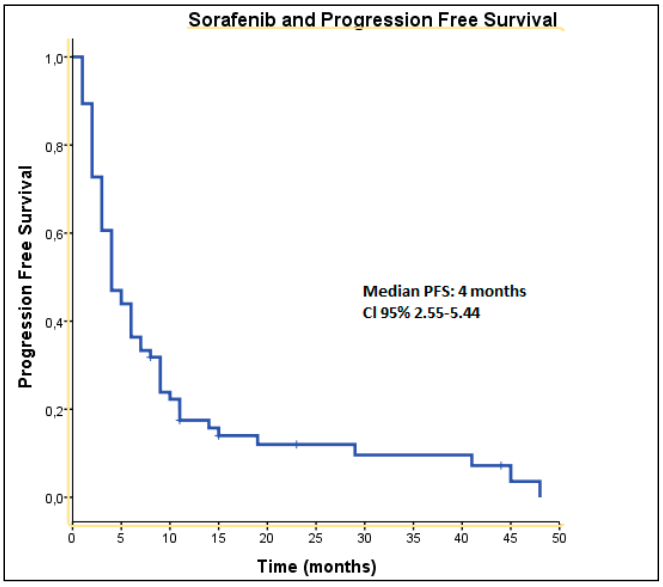

Figure 2. Sorafenib and Progression Free Survival

OP-05

EVALUATION OF SELF-ESTEEM IN PATIENTS WITH STOMA

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Introduction: The colostomy is a necessity for some patients in the treatment of colorectal cancer. However, this procedure may negatively affect patients psychosocially. Our study aimed to evaluate whether there is a difference between the patients with colorectal cancer with and without colostomy in terms of the Rosenberg self-esteem scale (RSES) and BECK depression inventory (BDI) scores. Also, our other aim was to evaluate the relationship between BDI and RSES scores.

Materials and Methods: Literate patients who received adjuvant chemotherapy (FOLFOX / CAPEOX) to treat operated colorectal carcinoma in an outpatient chemotherapy unit between October 2018 and February 2019 were included in the study. The patients were asked to complete the BDI and RSES. Scale results of patients with and without stoma were compared. Also, it was evaluated whether there was a correlation between BDI and RSES scores.

Results: Twenty-one patients with a median age of 57.8 years (range, 42.7-69.7) were included in the study. The main patient characteristics are displayed in Table 1.

BDI scores were high in 7 (33%) of the patients (a score greater than 9 was considered a high value). RSES score was high in 10 (47.6%), medium in 7 (33.3%), low in 4 (19.0%) patients (scoring: 0-1 high, 2-4 medium, 5-6 low). High BDI scores were observed in 3 (42.9%) patients with colostomy and 4 (28.6%) patients without colostomy ($p = 0.638$). Low RSES score was observed in 2 (28.6%) patients with colostomy and 2 (14.3%) patients without colostomy ($p = 0.574$). There was no correlation between BECK score and RSES score in patients without colostomy ($R = 0.517$, $p = 0.058$), whereas there was correlation in patients with colostomy ($R = 0.859$, $p = 0.013$).

Conclusion: Although it did not reach statistical significance, we determined a numerically higher probability of high BDI and low RSES scores in colorectal cancer patients with a colostomy. The low number of patients in our study may have prevented us from reaching statistical significance. Also, the presence of a correlation between low self-esteem and depression scores in patients with colostomy may reflect a possible psychiatric disorder's pathophysiology in these patients. For this reason, studies with larger patient numbers may clarify this situation.

Keywords: Self-Esteem , Colorectal Cancer, Colostomy, Stoma, BECK depression inventory (BDI), Rosenberg self-esteem scale (RSES)

Table 1. Main patient characteristics (n=21)

Gender	
Male	14 (66.7%)
Female	7 (33.3%)
Tumor Location	
Colon	15 (71.4%)
Rectum	6 (28.6%)
Colostomy	
Yes	7 (33.3%)
No	14 (66.7%)
BDI score, median	8 (range, 0-29)
RSES score, median	2 (range, 0.25-5.34)

OP-06

THE EFFECT OF THE TIME FROM THE DATE OF PATHOLOGICAL DIAGNOSIS TO THE START OF CHEMOTHERAPY IN GASTRIC CANCER PROGNOSIS

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[1]Gazi University Faculty of Medicine

Background: Advanced gastric cancer (AGC) is a common disease with poor prognosis. In oncology practice, it is known that early diagnosis and treatment in all cancers changes the prognosis of the disease. However, in the management of advanced disease, it has not been shown that starting treatment a few days/weeks earlier is associated with a better prognosis. The aim of this study was to evaluate the effect of the time elapsed between the diagnosis made by imaging methods and pathological diagnosis (CPDT: Clinical to Pathological Diagnosis Time) on the disease survival in patients with AGR. The secondary endpoint of the study was determined as the effect of the time elapsed from the visualization of the disease to the initiation of treatment (PDTT: Pathological Diagnosis to Treatment Time) on gastric cancer survival.

Methods: Between 2009 and May 2018, the files of patients with AGC were retrospectively evaluated. All of the patients had histopathological diagnosis of gastric adenocarcinoma. The date on which the gastric tumor was shown radiologically / endoscopically, the date of pathological diagnosis and the date of treatment were recorded. Patients with concomitant hematological disease and previously using drugs that might effect complete blood count were excluded from the study. Patients with insufficient file data or lost to follow up on the diagnostic process were not included in the study.

Results: A total of 99 patients with AGC were included in the study. Median CPDT was determined as 7 days. Median overall survival was 11.4 months in patients with CPDT <7 days, and 7.8 months in patients with> 7 days (p: 0.030). PDTT median was 15 days and patients were divided into two groups to this value. While the mOS was 9.8 months in PDTT <15, it was 8.8 months in those> 15 (p: 0.292). Multivariate analysis showed that CPDT was an independent predictor of overall survival.

Conclusion: In patients with AGR, when tumors are detected by imaging methods, earlier early treatment do not seem to affect mortality.

Keywords: gastric cancer, prognosis, survival, chemotherapy

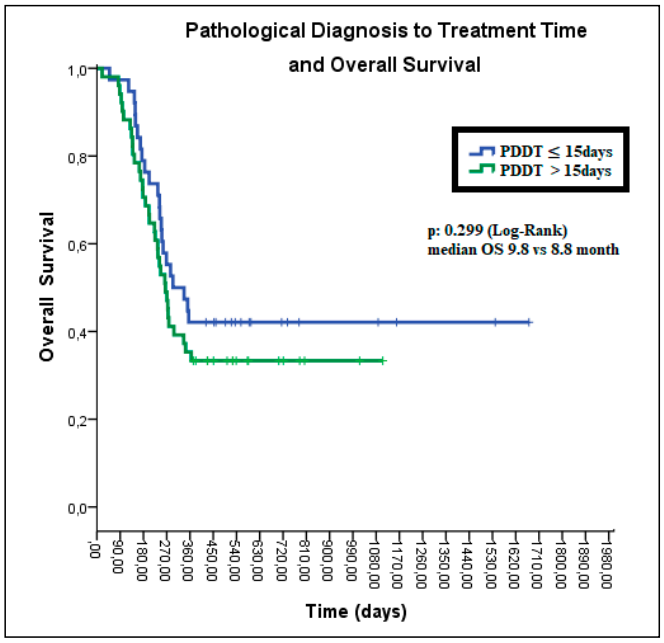

Figure 1. Pathological Diagnosis to Treatment Time and Overall Survival

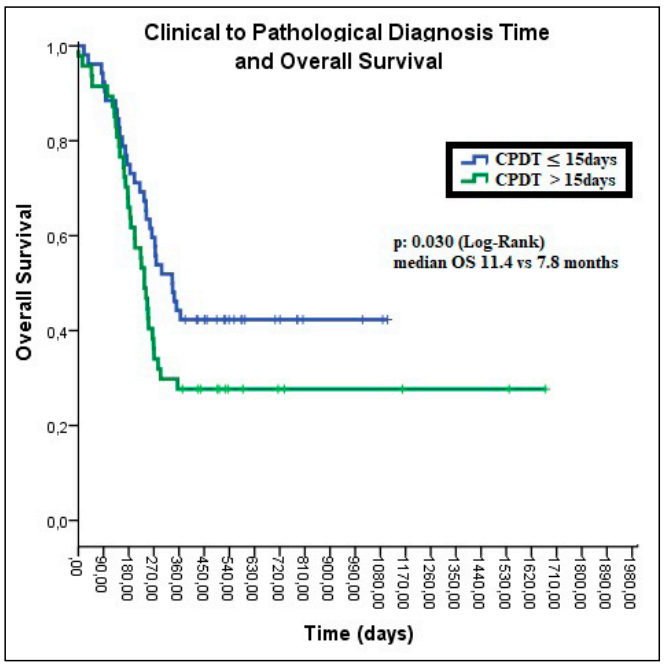

Figure 2. Clinical to Pathological Diagnosis Time and Overall Survival

OP-07

GASTROINTESTINAL CANCER STATISTICS OF A SINGLE TERTIARY ONCOLOGY CENTRE

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Background: The study aims to determine the distributions of patients with gastrointestinal cancer treated at Istanbul University Institute of Oncology and calculate the one-, three-, and five-year survival rates for all cancer types.

Method: All patients with gastrointestinal cancer were included in the study between 01.01.2012 and 31.12.2018**.** Demographic and clinical data of the patients were recorded. SPSS v25 was used for statistical analysis. The survival ratios of 1,168 patients with gastrointestinal cancer who applied in 2014 years calculated with Kaplan-Meier analysis.

Results: 7350 **(**24.1% of all patients with cancer) patients were included in the study. The median number of patients per year was 1,013 (range, 872-1,209). The median age at diagnosis was 59.8 (range, 18-100) years, and the percentages of male and female patients were 60.1% and 39.9%, respectively. The most common locations of gastrointestinal cancer were colorectal (50.4%), gastric (21.3%), pancreas (9.8%), liver – intrahepatic bile duct (9.8%), esophagus (5%), and other (3.7%). Colorectal (52.3%), gastric (19%), and pancreas (10.5%) were the most common cancer types for females. Colorectal (49.1%), gastric (22.8%), and liver-intrahepatic bile duct (9.4%) were the most common cancer types for males. In the patients who applied in 2014, one-, three-, and five-years overall survival (OS) for all cancer types was 61.1%, 36.7%, and 27.8%, respectively. The five-year OS ratios in patients with colorectal, gastric, and pancreatic cancer were 34.2%, 24.3%, and 8%, respectively.

Conclusions: In this study, we determined the gastrointestinal cancer statistics of our cancer center. Cancer centers should know their patient profile for institutional planning. Patients with locally advanced or metastatic gastrointestinal cancer are usually treated in tertiary cancer centers, and patients' survival ratios are low.

Keywords: gastrointestinal cancer, statistics, survival analysis

OP-08

GASTROINTESTINAL STROMAL TUMOR-SINGLE CENTER EXPERIENCE

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[1]*Gazi University Faculty Of Medicine Hospital*

İntroduction: Gastrointestinal stromal tumors (GIST) are rare tumors of the gastrointestinal system. We aimed to retrospectively evaluate clinical, pathological, and laboratory parameters that may impact overall survival.

Method: We retrospectively evaluated patients' data with a diagnosis of GIST who applied to the medical oncology outpatient clinic of Gazi University Hospital between 2008-2019.

Results: Forty patients were included in the study. 85% of the patients were in the local resectable stage at the time of diagnosis. General data regarding the clinical and pathological parameters of the patients are given in table-1.

There was no effect of pain, bleeding, and obstruction on OS in terms of symptoms at the time of diagnosis (respectively; p = 0.93, p = 0.53, p = 0.83).

In the evaluation of inflammatory parameters, there was no correlation between PLR (platelet / lymphocyte ratio), NLR (Neutrophil / lymphocyte ratio), SSI (systemic inflammatory index) and median OS (p = 0.77, p = 0.1, p = 0.18, respectively). In the Kaplan-Meier survival analysis performed by taking the PLR median 169 (IQR: 108-246) as a cutoff, no difference was found in OS between patients with low and high PLR values (median OS: 112 months vs. 96.5 months, p = 0.134). NLR cutoff value was taken as a median 2.9 (2.2-5.7), and no difference was found in OS between patients with low and high NLR values (median OS: 104.7 months vs. 106 months, p = 0.7). SII cutoff was taken as the median 755 (462-1504), and there was no difference in OS between patients with low and high SII values (median OS: 105 months vs. 106.1 months, p = 0.7).

In the examination of pathological parameters, when patients were divided into three groups as low-moderate-high (no patients

available with very low risk) risk according to Miettinen prognostic index (mitosis, localization, and size), there was no significant difference between patients' OS values (107 months, respectively, 113 months, 97 months; p = 0.83). The relationship between OS and necrosis, CD117, and similar pathological parameters, excluding the Miettinen prognostic index, was also examined. There was a significant difference in OS between patients with and without necrosis (1%) in the pathology at the diagnosis (80 months vs. 125 months, respectively, p = 0.021). However, when the CD117 staining was compared, the OS of the patients with +++ stained numerically was better than those with + / ++ (respectively; 90.4 months vs. 114.3 months), but no statistically significant difference was found (p = 0.43). Likewise, when comparing patients with ≤5% and> 5% according to their KI67 staining, ≤5% patients' OS was numerically better (119 months vs. 75.6 months, respectively), but no statistically significant difference was found (p = 0.077).

In conclusion, the presence of necrosis in the pathology at the time of diagnosis (≥1%) is a pathological prognostic parameter that negatively affects overall survival in GIST patients.

Keywords: Gastro İntestinal Stromal Tumors, GIST, CD117

Table 1. Patient general information and pathological information

Table-1 Patient general information and pathological information			
		n	%
Gender	Male	20	50
	Female	20	50
Age	Mean (±std)	58.4 (±2.2)	
Initial symptom	Pain	26	65
	Bleeding	11	27.5
	Obstruction	5	12.5
Stage (TNM)	I	17	42.5
	II	11	27.5
	III	6	15
	IV	6	15
Primary localisation	Gastric	23	57.5
	Duedonum	1	2.5
	Small intestine	8	20
	Colon	1	2.5
	Rectum	1	2.5
Tumor size	Median (IQR) (mm)	62.5 (33.75-110)	
CD117	Staining	40	100
	+	5	12.5
	++	5	12.5
	+++	30	75
Mitosis	Median (IQR)	3.5 (1-6)	
	Low grade (≤5)	29	74.4
	High grade (>5)	10	25.6
Ki67	Median (IQR)	3 (1-5)	
Necrosis	Positive	15	38.5
	Negative	24	61.5
Rupture	Positive	23	67.6
	Negative	11	27.5
Miettinen prognostic index	Low	18	46.2
	Moderate	10	25.6
	High	11	28.2

OP-09

THE USE OF 68GA-DOTA-TATE PET/CT IMAGING IN GASTRO-ENTEROPATHIC NEUROENDOCRINE TUMORS, A SINGLE CENTRE EXPERIENCE

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Aim: Somatostatin receptor labelled imaging techniques has shown to be helpful in evaluating neuroendocrine tumors in staging, re-staging and assesment of treatment response. Gallium-68 DOTA-TATE PET/CT imaging is succesfully used for gastroenteropathic neuroendocrine tumors (GEP-NET). Furthermore, heterogeneous morphology of the tumor also can be shown for Grade 3 tumors.

Material & Methods: Forty-four patients (19 women, 25 men) with gastroenteropathic neuroendocrine tumors were referred to our department for Ga68-DOTA-TATE PET/CT scan analyzed retrospectively. Patients were scanned for staging (n=14), re-staging (n=19) and evaluation for treatment response (n=11). Images were obtained through PET/CT scan (GE Healthcare, Wisconsin, USA) after 45-60 minutes injection of approximately 100-200 Mbq Ga68-DOTA-TATE (130kV, 50-80 mAs, slice thickness of 3mm).

Results: The mean age of the patient group was 56 (35-78) years. More than half of the patients (28 out of 44 patients, 63%) had positive findings for primary tumor and/or metastases. Some of the data was not available for every patient cause some of them were referred from other hospitals.The primary tumor of the patients, were histopathologically identified, were in pancreas (n=20), stomach(n=9), small bowel (n=11) and colon (n=5). Additionally, the liver metastasis, local lymph node invasions, distant lymph node metastasis, bone metastasis and lung metastasis were detected in Ga68-DOTA-TATE PET/CT images. Fifteen patients had grade 1, eleven patients had grade 2 and 6 patients had grade 3 tumor due to GEP-NET classification system. Six out of 11 from grade 2 tumors and 7 out of 15 grade 1 tumors had positive findings with PET/CT scan. Furthermore, 4 out of 6 grade 3 tumors also had positive lesions that were important for further treatment strategies additionally to chemotherapy.

Conclusion: Neuroendocrine tumors could be hard to detect especially in initial stage of the disease. Based on our findings, Ga68-DOTA-TATE PET/CT is shown as a successful method for imaging primary GEP-NET and their metastases in our patient group. Furthermore, positive patients especially with grade 1 and 2 tumors can be treated with peptide receptor radionuclide therapy (PRRT). More importantly, it could identify the disease in group of patients with Grade 3 tumors which could show the heterogenity of the tumor and give a chance for PRRT as a complementary treatment to chemotherapy.

Keywords: Gallium-68, PET/CT, Somatostatin

OP-10

CLINICOPATHOLOGICAL FEATURES AND MICROSATELLITE INSTABILITY (MSI) IN LYMPH NODE NEGATIVE COLON CANCERS

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[1]*Istanbul University-cerrahpasa Cerrahpasa Medical Faculty*

Introduction: The abnormal shortening or lengthening of DNA by 1-6 repeating base pair units is a phenomenon caused by the inactivation of the DNA mismatch repair (MMR) system, and leads to the MSI phenotype. the MSI phenotype, which reflects the absence of protein expression encoded by the corresponding MMR genes (*hMLH1*, *hMSH2*, *hMSH6*, or *PMS2*). It has also been shown that the incidence of MSI differs between stage II and stage III disease, and that its prognostic impact seems to be significantly stronger in stage II than in stage III. Since approximately 1998, we have known that the majority of MSI-H CRC patients form a unique subset characterized by a differential, less aggressive clinical behavior and a favorable prognosis compared to MSS CRC patient. In this study we aimed to determine the differences in clinicopatological caracteristics of patients between MSI CRC and MSS CRC patients.

Material Methods: Operated node negative colon cancer patients were included in this retrospective analysis. Patients with MMR genes (hMLH1, hMSH2, hMSH6, or PMS2) were included in the study. They were divided into two groups according to MSI and MSS status. while immunohistochemistry (IHC) was used to examine expression of MMR genes.

Results: 19 patients with MSI and 46 patients with MSS were included in this study randomly. 10 (52.6%) patients were female in MSI group, 24 (52.1%) patients were female in MSS group. 28 (60.9%) of lessions in MSS group was located in the left colon, 11 (57.9%) of lessions in MSI group was located in the right colon. But there was no significant differences in the localization between groups (p=0.166). There were also no significant differences in lymphatic, vascular and perineural invasion between groups (p=0.280, p=0.196, p=0.729, respectively). Tumors with grade 1 differentiation were more common in both groups . 4 patients had mucinous adenocarcinoma in MSS group and 3 patients had mucinous adenocarcinoma in MSI group. 5 year survival rate was 90% in MSI group, 85% in MSS group. Median OS was not reached (Figure 1), and there was no significant differences in OS between groups (p=0.404).

Discussion: Clinicopathological features known to be associated with the presence of MSI include location of the primary tumor proximal to the splenic flexure, poorly differentiated cancers, predominance of mucin producing cells in lesions with MSI and peritumoral lymphocytic infiltration. In this study, proximal tumors were numerically higher in the MSI group, but there was no difference in terms of differentiation, mucinous charactesiation and lymphovascular invasion in both groups. Because the number of patients were low, and the study include only N0 colon cancer patients.

Keywords: MSI, colon cancer, node negative

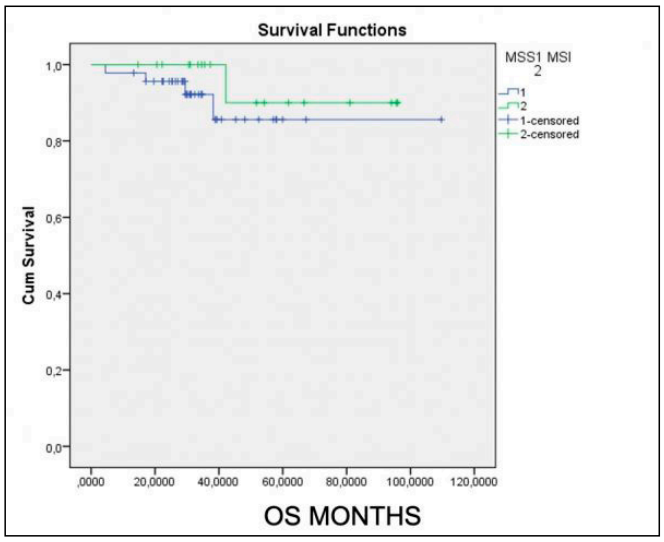

Figure 1. Median Os was not reached

OP-11

GASTRIC CANCER PRESENTING WITH WIDESPREAD BONE METASTASES: TWO RARE CASES REPORT

Yalçın Çırak[1]

[1]*Canakkale Onsekiz Mart University*

The skeleton is a frequent site of metastases of carcinoma of breast, lung, prostrate, kidney, thyroid and bladder. The incidence of bone metastasis of gastric cancer is relatively rare (3.8 %)[1]. However, the presentation of gastric cancer with widespread skeletal metastases without preceding gastrointestinal symptoms is very rare. We report two cases of gastric cancer presenting with symptomatic widespread skeletal metastases as first presentation.

Case 1: 67 old- year men with no significant past medical history or symptoms was referred to hospital due to low back pain. A review of computed tomography (CT) of Lumbar spine, showed mujltiple bone metastases. Mild carcino-embryonic antigen (CEA;9,7 ng/ml) and marked CA 19.9 (1396 U/ml), elavation were detected. Fluorodeoxyglucose-positron emission tomography/CT (FDG-PET/CT) revealed multiple osteolytic bone metastases, including left scapula, ribs, left femur,ecetabulum, cervical, thoracic and lumbar vertebrae (figüre-1). In addition, diffuse wall thickening was observed in the walls of the stomach showing minimal increased FDG uptake. Esophagogastroduodenoscopy revealed a small 7-8 mm ulcerated area with irregular edge at the gastroesophageal junction. A biopsy indicated invasive poorly differentiated gastric adenocarcinoma with signet ring cells.

Case-2: 65 old-year men with history of hypertension presented to the hospital with a two- week history of worsening low back pain and weight loss. Laboratory findings indicated a increased alkaline phosphatase and lactate dehydrogenase levels. CT of the abdomen revealed several sclerotic bone lesions in the lumbosacral sipine and diffuse wall thickening of the distal esophagus and stomach. CA 19.9 level was 1404 U/ml. FDG-PET/CT showed multiple osteoblastic skeletal methastases,including bilateral scapula, ribs, bilateral iliac bones, left acetebulum, left femur neck, cervical, thoracic and lumbosacral vertebrea (figüre 1). In addition perigastric and paraaortic lymph node enlargements showing mild increased FDG uptake were detected. Biopsies taken from the several hyperemic area seen on esophagogastroduodenoscopic examination were not diagnostic. Endoscopic ultrasonography guided gastric biopsy indicated poorly differentiated gastric adenocarcinoma with signet ring cells. Both cases who was negative the immunohistochemical stain for human epidermal growth factor receptor 2 (HER2) underwent six cycles of chemotherapy with docetaxel oxaliplatin, and infusional 5 fluorouracil with good initial response; however, they showed progression a few months after last cycle. First case died from massive pulmonary embolism while receiving irrinotecan-based second line chemoetherapy.In the second case, palliative treatment was initiated as the ECOG performance score decreased. We present two rare cases whose disease onset with complaints result from diffuse skeletal metastases without gastric complaints, and clinical course are very similar.

Keywords: Gastric cancer, İnitial presentation, Bone metastasis,

References

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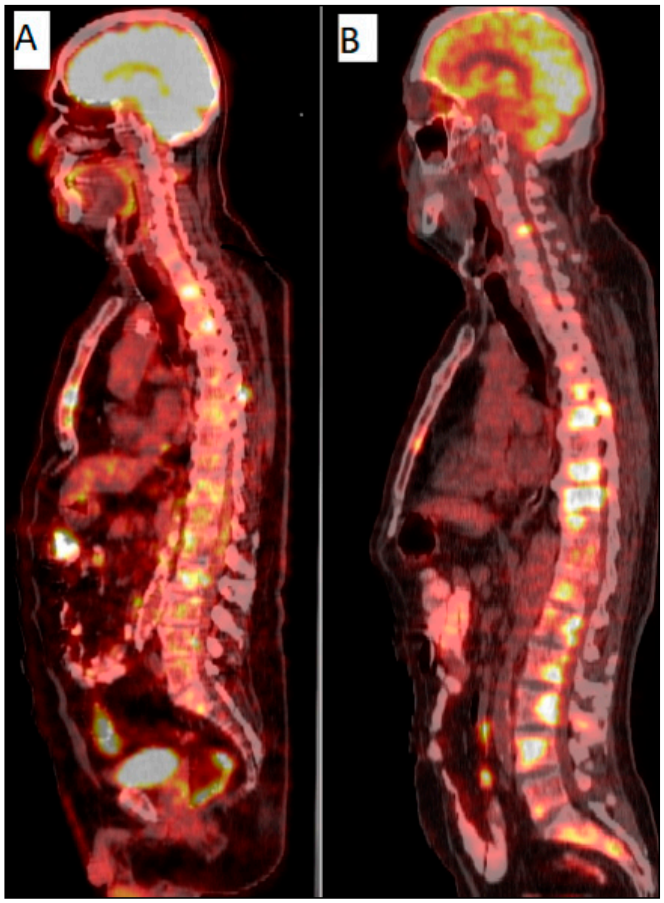

Figure 1. PET/CT imaging showing widespread bone metastases (A) case 1, (B) case 2

OP-12

THE GEMCİTABİNE PLUS NAB-PACLİTAXEL COMBINATION IN THE FIRST-LINE TREATMENT OF METASTATIC PANCREATIC CARCINOMA

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Introduction: 5-fluorouracil/leucovorin combined with irinotecan and oxaliplatin (FOLFIRINOX) and gemcitabine plus nab-paclitaxel combination chemotherapy (CTX) regimens are prominent options in the first-line treatment of metastatic pancreatic cancer(mPC). The FOLFIRINOX regimen may cause severe toxicities, limiting its use in some patients, particularly those with poor performance status. We aimed to evaluate the efficacy of the Gemcitabine plus Nab-paclitaxel combination in first-line treatment of mPC.

Methods: Patients who received the gemcitabine plus nab-paclitaxel as first-line treatment form mPC between 2010 and 2019 and not eligible for the FOLFIRINOX regimen were evaluated. Progression-freesurvival (PFS), overall survival (OS), grade III-IV toxicities, and treatment responses were analyzed.

Results: Seventeen patients with a median age of 67 years (range, 42-84) were included in the study. The median follow-up time was 5.3 months (range, 0.4-44.8). Nine (52,9%) were male, and eight (47.1%) were female. Eleven (64.7%) patients were at the metastatic stage at diagnosis, 6 (35.3%) patients had initially received curative treatment, and later developed metastasis. ECOG performance statuses were 1 and 2 for 9 (52.9%) and 8 (47.1%) patients, respectively.The patients received an average of 6 cycles (2-17) of CTX. Partial response was obtained in 4 (23.4%) patients, stable in 5 (29.4%) patients, and progressive disease in 4 (23.5%) patients. The most frequent grade I-II toxicities were neutropenia (64,7%), nausea-vomiting (52,9%). Dose reduction was needed in 5 (29.4%) patients. The median PFS was 6.4 months (95% CI, 3.4-9.4)(figure 1), and the median OS was 8.8 months (95% CI, 7.0-10.7)(figure 2).

Conclusion: The gemcitabine plus nab-paclitaxel combination appears to be an effective and safe option for patients whose performance status is not good enough to receive FOLFIRINOX in the first-line treatment of metastatic pancreatic cancer.

Keywords: Metastatic pancreatic cancer,Gemcitabine plus nab-paclitaxel, Efficacy

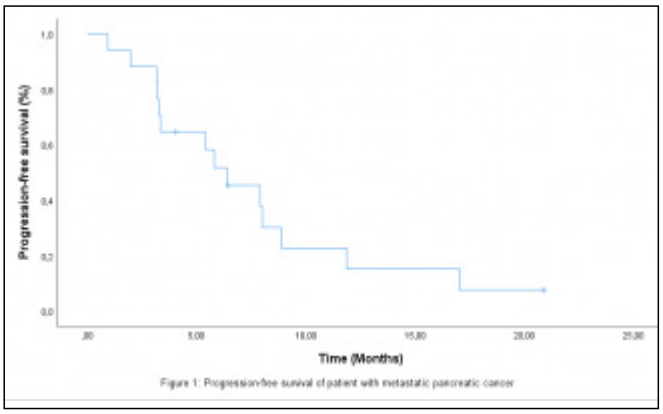

Figure 1.

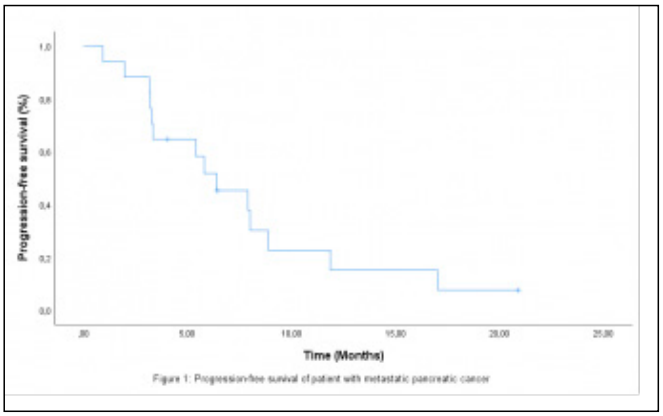

Figure 2.

OP-13

REGORAFENIB VERSUS CHEMOTHERAPY RECHALLENGE IN METASTATIC COLORECTAL CANCER (MCRC) THIRD LINE TREATMENT

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Introduction: Regorafenib is the main treatment option in the third-line treatment of mCRC. However, it may be necessary to offer a treatment option to patients who are not suitable for regorafenib. We aimed to compare patients who received regorafenib or chemotherapy (CT) in mCRC third-line therapy.

Patients and Methods: Patients treated with the diagnosis of mCRC between December 2009-October 2019, were evaluated. Patients who received regorafenib or a CT scheme consisting of chemotherapeutics taken in previous lines as third-line therapy were included in the study. Groups were compared in terms of main characteristics, treatment responses, side effects, progression-free survival (PFS), and overall survival (OS).

Results: Forty-two patients with a median age of 57 years (range, 31-82) and with a median follow-up time of 5.3 months (range, 0.4-44.8) were included in the study. Twenty four (57.1%) were male, and 18 (42.9%) were female. Eighteen (42.9%) of the patients had received regorafenib and 24 (57.1%) had received CT (Capecitabine 7 (16.7%), CAPEOX 5 (11.9%), FOLFOX 4 (9.5%), FUFA 3 (7.1%), FOLFOX + Bevacizumab 2 (4.8%), Irinotecan 2 (4.8%), Oxaliplatin + Bevacizumab 1 (2.4%)). Comparative main characteristics are displayed in table 1.

In regorafenib group stable disease (SD) in 3 (16.7%), and progressive disease (PD) in 15 (83.3%) patients, and in CT group SD in 6 (25.0%), and PD in 18 (75.0%) was observed (p = 0.708). Grade 3-4 side effects were observed in 6 (33.3%) patients in the regorafenib group and 4 (16.7%) patients in the CT group (p = 0.281). Grade 3-4 side effects are displayed in table 2. In the regorafenib group, 6 (33%) patients had a median dose reduction of 25.0% (range, 25-50), while 7 (29.2%) patients in the CT group performed a median dose reduction of 20% (range, 20-35) (p = 1.0).

The median PFS was 2.4 (1.6-3.2, 95% CI) months for the regorafenib group and was 2.6 (2.0-3.2, 95% CI) months for the CT group (p = 0.714). The median OS was 5.7 (2.3-9.1, 95% CI) months for the regorafenib group and was 6.5 (3.7-9.3, 95% CI) months for the CT group (p = 0.081). One-year OS rate was 38.9% in the regorafenib group and 20.8% in the CT group.

Conclusion: We observed that the efficacy of both CT and regorafenib therapy was very low in the current study. A small proportion of patients had stable disease, while no objective response was in any patient. The groups were similar in terms of treatment efficacy and rates of serious side effects. Median PFS and OS were similar in both groups. Although there was no significant OS difference, the proportion of patients alive at the end of the first year was 18% higher in the regorafenib group. For eligible patients who are not appropriate for regorafenib in the third-line treatment of mCRC where the treatment options are limited, retreatment with previously well-responded chemotherapeutics may be an option.

Keywords: Regorafenib, Metastatic Colorectal Cancer (mCRC), Third-line, Chemotherapy Rechallenge

Table 1. Main Characteristics

Characteristics	*Regorafenib (n=18)*	*Chemotherapy (n=24)*	*p*
Gender			
Male	11 (61.1%)	13 (54.2%)	0.757
Female	7 (38.9%)	11 (45.8%)	
Age of Diagnosis *	59.3 (36.3-67.9)	55.7 (31.1-82.3)	0.416
Duration of Treatment*	2.6 (0.3-21.6)	2.8 (0.4-13.3)	0.799
Follow-up Time*	4.6 (1.4-44.8)	5.8 (0.4-17.4)	0.237

Median (Range)

Table 2. Grade 3-4 Side Effects

Regorafenib (n=18)	*Chemotherapy (n=24)*
Hypertension 2 (11.1%)	Neutropenia 3 (12.5%)
Hand-Foot syndrome 1 (5.6%)	Thrombocytopenia 2 (8.3%)
Mucositis 1 (5.6%)	Anemia 1 (4.2%)
Thrombocytopenia 1 (5.6%)	

OP-14

THE PROGNOSTIC EFFECT OF TUMOR SIZE IN NODE NEGATIVE GASTRIC CANCER

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Introduction: The prognostic effect of the tumor size in gastric cancer is still unknown especially in node negative gastric cancer. Although one of the most important prognostic factors is lymph node metastasis, patients without lymph node involvement have disease recurrence. In this study we try to evaluate the importance of tumor size in node negative gastric cancer.

Method: The patients who underwent gastric cancer surgery were included in the study. The clinical, pathologic and disease related features were recorded from patient archive retrospectively.

Results: Seventeen patients were enrolled in the study. The most frequent tumor localizations were corpus and antrum respectively. The D1 and D2 dissections were nearly similar among the study population. Also, total and subtotal gastrectomy rates were nearly the same. No prognostic effect of tumor size was determined for both OS and DFS.

Conclusion: In this study we observed no prognostic effect of tumor size in node negative gastric cancer. Larger prospective studies are still needed to elucidate this area.

Keywords: Gastric Cancer, Tumor Size, Prognosis, Node Negative

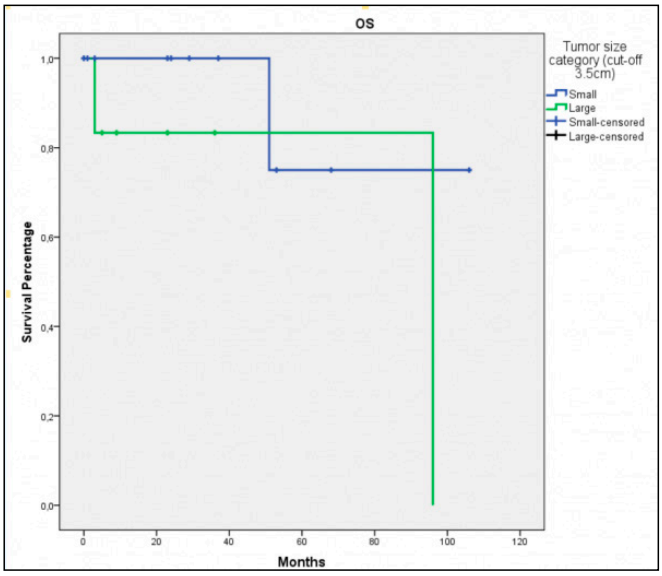

Figure 1. Effect of the tumor size to OS

OP-15

CYTOTOXIC EFFECT OF NICKEL CHLORIDE IN HEPATOCELLULAR CARCINOMA CELL LINES

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Introduction: Since the use of cis-platinum, a metal compound, in cancer treatment, it has been shown that many metal and metal compounds might be a promising agent in cancer treatment. One of these compounds is nickel chloride ($NiCl_2$). Although, $NiCl_2$ is defined as a non-genotoxic carcinogen, it has been suggested that it may be a therapeutic agent in some types of cancer. Anticancer effects of $NiCl_2$ in hepatocellular carcinoma (HCC) cell lines are yet to be known. In this study, we aimed to investigate the effects of $NiCl_2$ on cell viability, apoptosis and colony formation in well and poorly differentiated hepatocellular carcinoma cell lines.

Methods: In order to determine the effects of $NiCl_2$ on cell viability, apoptosis and colony formation ability, we used HuH-7 cell lines, well differantiated HCC cells, and Mahlavu cell lines, poor differantiated HCC cell lines. $NiCl_2$ was treated to HCC cell lines at 0 / 100 / 200 / 400 / 800 / 1200 / 1600 / 3200 μM doses for 24, 48 and 72 hours. MTT (3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide) assay was used for determine of effect of $NiCl_2$ on cell viability. IC50 values were calculated by using dose response inhibition analysis. Colony formation assay was used for determine of effect of $NiCl_2$ on colony number. Also, acridine orange staining was used for determine of effect of $NiCl_2$ on apoptosis.

Results: In HuH-7 cell lines, it was shown that $NiCl_2$ decreased the cell viability statistically significantly starting from the 400 μm dose at 24 and 48 hours, however, this effect started from 200 μm in mahlavu cell lines ($p<0.05$). In the HuH-7 cells, the IC50 (the half maximal inhibitory concentration) value was calculated as 535,7 μM, 322,7 μM and 215,9 μM doses at 24, 48, 72th hours, respectively. In the Mahlavu cell lines, IC50 values were determined as 730 μM, 365 μM and 191 μM at 24, 48 and 72th hours, respectively. It has been shown that treatment of $NiCl_2$ in both cell lines decreased cell viability in a dose and time dependent manner. It was determined that apoptosis increased statistically with $NiCl_2$ treatment in HCC cells ($p <0.001$). Also, it was found that $NiCl_2$ treatment to HCC cells lines reduced the colony forming ability of HuH-7 and Mahlavu cell lines ($p <0.001$).

Conclusion: In our study, it has been shown that the treatment of well and poorly differentiated hepatocellular cell lines with $NiCl_2$ decreases cell viability in a time and dose dependent manner and, increases cell apoptosis and decreases colony forming ability of the HCC cells. These results are promising and may allow us to further usage of $NiCl_2$ as a potential therapeutic agent

Keywords: Nickel chloride, Cancer, Hepatocellular carcinoma

OP-16

THE INVESTIGATION OF THE RELATED FACTORS THAT AFFECTED TARGETED THERAPY OUTCOME IN METASTATIC COLON CANCER

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Introduction: Colorectal cancer is one of the most frequent cancer types which has a high mortality rate. Recently, targeted therapies are used with chemotherapy as front-line and also further treatment lines. In this study, we aim that investigated and compared the treatment outcomes of targeted agents in real-world.

Material and Methods: The metastatic colorectal cancer patients who treated with targeted agents between 2010 - 2018 in Ankara Yildirim Beyazit University were included in this study. The patient's data were retrospectively collected by using hospital electronic database and patient's records.

Results: Totally, 110 patients were included in this study. Although the most common tumor localisation was left colon (42.7%), right colon (27.7%) and rectum (27.3%) were also the other localisations. The overall survival (OS) was 40 months in the whole group. The-OS was numerically higher in the left colon than right colon but not significant (40 months vs. 28 months p: 0.34). In first-line settings, progression-free survival (PFS) was nearly significant higher in the anti-EGFR group than anti-VEGF (p:0.068). The PFS in the right colon was 12 and 8 months in patients who received anti-EGFR and anti-VEGF treatment, subsequently (P: 0.139). The PFS in the left colon was similar between anti-VEGF and anti-EGFR treatment (p: 0.4)

Conclusion: The treatment outcomes of targeted therapies in real-world are consistent with clinical trial results. The tumor localisation should be considered for treatment selection.

Keywords: target, EGFR, VEGF, colorectal

OP-17

A MULTICENTER AND REAL-LIFE EXPERIENCE: HOW ADJUVANT TREATMENT OF GASTRIC CANCER HAS CHANGED OVER TIME?

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Background: Intergroup 0116 trial showed the effect of adjuvant chemoradiotherapy (CRT) on the overall survival (OS) and recurrence-free survival (RFS) among gastric cancer patients. However, the ARTIST trial did not establish any additional benefit of CRT on RFS against chemotherapy (CT) alone in the gastric cancer patients performed extended (D2) lymph node dissection. After becoming the standard approach of D2 dissection in operable gastric cancer patients, the CLASSIC trial showed the effect of the XELOX regimen in the adjuvant treatment of gastric cancer.

This study aimed to share a real-life experience for changing adjuvant treatment approaches in gastric cancer patients over time.

Methods: Gastric cancer patients performed adjuvant treatment were extracted from the database, including the operable gastric cancer patients from two hospitals in Turkey. Patients treated with RT alone in the adjuvant setting were excluded from this study. Patients were divided into two groups by their diagnosis date of gastric cancer. The first group included the patients diagnosed between 01.01.2002-31.12.2012 to assess the INT 0116 trial's impact, while the second group included the patients diagnosed between 01.01.2013-30.06.2019 to assess the CLASSIC trial's impact. Adjuvant treatment regimens were compared between the groups.

Results: A total of 326 patients were included in this study. Two hundred-twelve of them (65%) were male. The median age at diagnosis was 56 (interquartile range (IQR):48.5-64). Two hundred twenty-seven patients (70%) were treated with CRT and 99 patients (30%) treated with CT. The median follow-up was 25 months (IQR:15-50). In a group of patients treated between 01.01.2002-31.12.2012, 15 patients (16%) were treated with CT, and 79 patients (84%) were treated with CRT. In a group of patients treated between 01.01.2013-30.06.2019, 84 patients (36%) treated with CT, and 148 patients (64%) were treated with CRT. The proportion of patients treated with CRT was lower in the first group than the second group (84% vs. 64%, chi-square $p<0.001$). The proportion of patients treated with CRT was higher than those treated with CT in the second group (64% vs. 36%, binominal test $p<0.001$). Eight (53%) out of fifteen patients in the first group were treated with FUFA and 3 (20%) of them were treated with docetaxel/cisplatin/5-fluorouracil (DCF) regimen. Thirty-seven patients (44%) were administered XELOX or FOLFOX in the second group.

Conclusion: Although the CLASSIC and the ARTIST trials' results, most of the gastric cancer patients were administered CRT in the last six years; furthermore, XELOX and FOLFOX regimens were preferred in approximately half of the patients administered CT even after the CLASSIC trial's result. It seems that conflicting results regarding CRT and CT in the adjuvant treatment of gastric cancer patients are still affecting the physicians' preferences.

Keywords: gastric cancer, adjuvant treatment, chemotherapy, radiotherapy

OP-18

SURVIVAL,EXPRESSION AND CORRELATION ANALYSIS OF STOMACH,COLON AND RECTUM FOR SURVIVIN

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Background: Survivin (BIRC5) is one of the first inhibitors of an important family of proteins known as IAPs that regulate apoptosis. While it is expressed in high amounts in embryonic and fetal organs, it is not expressed in most of the normal differentiated tissues. Also it is known that it is expressed in high amounts in most types of cancer which makes survivin a unique candidate for cancer research.

The aim of this study was examining the expressions level of survivin compared to healthy subjects and evaluating its effect on survival of the patients with gastric, colon and rectal cancer.

Material Methods: For this purpose, The Human Protein Atlas database was used to take survival probability data. GEPIA database was used to create the graphs of correlation analysis and overall survival and disease free survival analysis.

Results: According to survivin expression analysis ,tumor tissues compared to healthy tissues, survivin expression was found significant in all the investigated cancer types (stomach, colon, rectum). When the graphs of total survival and disease-free survival were examined, survivin was not found to be prognostically significant. On the other hand, significant correlations were found in correlation analysis with CEA, CA 19-9 tumor markers. The most significant correlation of survivin with tumor markers was found in colorectal cancer (CEA $p = 0.0076$, CA 19-9 $p = 7.2x10^{-12}$). While there was no significant correlation with CEA in rectal cancer, it was found to be significantly correlated with CA 19-9 (CA 19-9 $p = 0.0014$). Finaly in rectal cancer, there is no significant correlation with CEA, but with CA 19-9 (CA 19-9 $p = 1.5x10^{-6}$).

Conclusion: Survivin can be an important marker classifying healthy and cancer patients and also adding this marker especially to colorectal cancer routine markers CEA and CA 19-9 for follow up.

Keywords: Survivin, Stomach neoplasms, Colonic Neoplasms, Rectal Neoplasms

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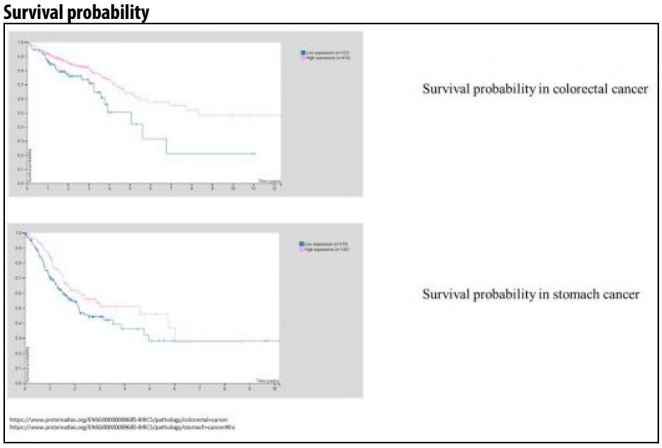
Survival probability



Survival and correlation analysis

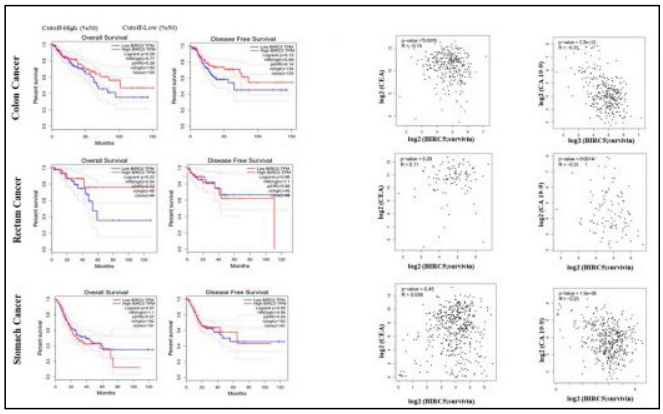


Table 1. Demographic Data of Colorectal Cancer Patients (Taken from "The Human Protein Atlas")

Live	473
Dead	124
Female	275
Male	322
Stage I	102
Stage Ia	1
Stage II	34
Stage IIa	168
Stage IIb	11
Stage IIc	2
Stage III	24
Stage IIIa	15
Stage IIIb	82
Stage IIIc	53
Stage IV	59
Stage IVa	24
Stage IVb	2
N/A	20

Table 2. Demographic Data of Stomach Cancer Patients (Taken from "The Human Protein Atlas")

Live	208
Dead	146
Female	125
Male	229
Stage I	2
Stage Ia	13
Stage Ib	33
Stage II	27
Stage IIa	34
Stage IIb	49
Stage III	3
Stage IIIa	59
Stage IIIb	51
Stage IIIc	33
Stage IV	35
N/A	15

OP-19

EFFECTS OF RESVERATROL, CATECHIN, EPICATECHIN AND QUERCETIN ON HEMATOPOIETIC SYSTEM IN GASTRIC AND COLON CANCER PATIENTS

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Introduction: The aim of the study is to investigate the effects of Resveratrol, Catechin, Epicatechin and Quercetin on the hematopoietic system in gastric and colon cancer patients who have undergone chemotherapy. Since the anemia of the patient must be treated before receiving chemotherapy, iron supplements can be given to patients. Since iron is an oxidant agent, it is important to use antioxidant supplements for reinforcement purposes.

Materials and Methods: 100 patient treated at Cerrahpaşa Medical Faculty, Oncology Department, diagnosed with gastric and colon cancer, operated, stage 3, whom received 3 cycles of chemotherapy, aged 45-65, have no active bleeding, whom had no non-steroid anti-inflammatory drugs, non-pregnant women, without diabetes and cardiac metabolic disease, having platelet values of 60000-100000, leukocyte values of 2600-3500, hematocrit values between 25-30% included in the study. 100 mg / day iron preparation was given to 50 patients out of 100 patients. Remaining 50 patients used a mixture of Resveratrol, Catechin, Epicatechin and Quercetin as a dietary supplement for 10 days (2 times a day, 1 cup of 10 ml mixture solution before lunch and dinner). The 5th and 15th day hematocrit, platelet and leukocyte values of the two groups using iron and food supplements after chemotherapy were compared.

Results: 50% of the patients were women and 50% were men. There were 60% colon cancer and 40% stomach cancer patients. The average age of the patients was 55.28. No significant difference was found between the iron-using group and supplement-using group in terms of Day 5 leukocyte, platelet and hematocrit values. A highly significant difference was found between the two groups in terms of leukocyte, platelet and hematocrit values on the 15th day ($p < 0.001$).

Conclusion: Food supplement containing Resveratrol, Catechin, Epicatechin and Quercetin caused a significant improvement in 15th day blood values after chemotherapy. In conclusion, beneficial effects of antioxidants used in grade 1-2 pancytopenia were observed in patients with gastrointestinal system tumors who underwent chemotherapy after surgery. The decrease in the use of blood transfusion and thrombocyte suspension has been beneficial in the administration of chemotherapy treatments of patients without delay, as well as increasing the quality of life of patients. It has helped strengthen the immune system. It significantly prevents patients from being exposed to opportunistic infections. Studies are needed in larger series.

Keywords: Anemia, Antioxidants, Resveratrol, Catechin, Quercetin, Neoplasms,Therapeutics

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Blood Paremeters of Two Groups

	Plt	Wbc	Hct	Plt	Wbc	Hct
Iron Group	78900	2882	27.66	79440	2888	28.56
Supplement Group	76300	2906	28.12	112500	4040	32.44

OP-20

THE INCIDENCE AND PROGNOSTIC SIGNIFICANCE OF SARCOPENIA IN ADVANCED GASTRIC CANCER PATIENTS

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Aim: Stomach cancer is the fifth most common malignancy in the world and also the third leading cause of cancer-related death. Sarcopenia is defined as the loss of skeletal muscle mass characterized by skeletal muscle atrophy and deterioration in muscle tissue quality. Sarcopenia and cachexia occurring in oncology patients have important effects on the survival of patients and treatment side effects. In this study, we aimed to determine the frequency of sarcopenia and its prognostic significance in advanced gastric cancer patients.

Materials and Methods: Patients with advanced stage or metastatic gastric cancer who applied to Ankara Yıldırım Beyazıt University Medical Oncology Department between 2012 and 2020 were included in this retrospective study. The mass of the muscles at the level of the 3rd lumbar vertebra was measured in cm2 by examining the CT and PET / CT images of the patients at the time of diagnosis and after treatment. Then, sarcopenia index (SI) was calculated by dividing the total muscle mass by the square of the patients' height. Patients with SI below 52.4 cm2 / m2 for men and 38.5 cm2 / m2 for women were considered sarcopenic.

Results: Fifty-nine patients (m/f: 43/16) were included in our study. The mean age at diagnosis was 59.7. Thirty-five patients (59.3%) were sarcopenic at the time of diagnosis. Male patients had higher muscle mass and SI values, significantly. Eighteen patients (34%) received triplet and 35 patients (66%) received platin based doublets as treatment regimens. The muscle mass and SI values at the time of diagnosis were significantly higher than the values measured in the interim evaluation of the patients. ($p<0.05$) In males, the muscle mass and SI values at the time of diagnosis were significantly higher than the post-treatment evaluation. ($p = 0,000$) Thirteen patients (22.0%) died during follow-up. The median OS was 8.2 months and the median PFS was 4.8 months. There was no significant relationship between sarcopenia status and OS or PFS.

Discussion: In our study, more than half of the advanced stage gastric cancer patients determined as sarcopenic at the time of diagnosis. The incidence of sarcopenia was compatible with recent data. The majority of patients might develop sarcopenia or the current state of sarcopenia worsened as a result of the natural course of the disease, regardless of the chemotherapy regimen they have received. Sarcopenia may have negative effects on drug side effects, surgical complications, and compliance with treatment. Large-scale prospective studies are needed to fully determine the effects of sarcopenia on prognosis, treatment efficacy, side effects and quality of life in patients diagnosed with advanced or metastatic gastric cancer.

Keywords: Sarcopenia, Gastric Cancer, Metastasis, Body Mass Index, Prognosis

OP-21

IMPACT OF TRANSARTERIAL CHEMOEMBOLIZATION COMBINED WITH RADIOFREQUENCY ABLATION IN THE TREATMENT OF COLORECTAL CANCER

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Aim: Colorectal cancer (CRC) is the most common malignant tumour and the third leading cause of cancer deaths in the world. Hepatic resection (HR) is the only curative option.Radiofrequency ablation (RFA) and transarterial chemoembolization(TACE) are alternative therapeutic techniques for treatment of liver metastases.In this study, we aimed to determine the factors affecting survival in all patients with colorectal cancer who underwent TACE.

Methods: Patients with metastatic colorectal cancer who were treated with TACE and/or RFA between 2010 and 2018 were retrospectively analyzed. Their demographic characteristics were recorded. Forty-nine patients over 18 years of age without brain metastasis were included in the study. The relationship between overall survival (OS) and progression free survival (PFS) levels of TACE and RFA applications was examined. Hazard ratios (HR) and confidence intervals (CI) were calculated using the Cox proportional hazards model.

Results: In the examination of our 49 patients who underwent TACE due to liver metastasis, there were 11 women (22.4%) and 38 men (77.6%). Median age was 62.69 ±10.19 years. Nineteen of our patients were right colon cancer, while 30 of them left colon and rectal cancer. There were 13 patients with extrahepatic distant metastases. Twenty-two of our 28 (57.1%) patients received targeted therapy in the metastatic stage received beva-

cizumab treatment. There were 27 (55.1%) patients with KRAS mutations. There were 12 (24.5.5) patients who could not receive treatment after TACE. There were 24 (49.0%) patients who were applied TACE once, 12 (24.5%) patients who were applied TACE twice and 13 (26.5%) patients had multiple TACE applied. Intrahepatic chemotherapy was applied from right-left hepatic artery in 18 (36.7%) patients, right hepatic artery in 24 (49%) and left hepatic artery in 7 (14.3%). Complications developed after TACE in 8 patients, 1 patient developed portal ven trombosis, 1 pancreatitis, 5 liver failure, 1 liver abscess. Median OS was 63.00 ± 8.80 months (%95 Cl; 45.73-80.26).The median PFS was 57,71 ± 5,61 months (%95 Cl; 46,71-68,71) in the RFA group while it was 43,14 ± 5,37 months (%95 Cl; 32,60-53,67) in the non-treated group (p=0,264).In cox regression analysis, there were no factors that statistically affect OS and PFS, KRAS status, right or left colon originated disease, continued chemotherapy after TACE application or not receiving targeted therapy.

Conclusion: Inthis study, we determined the characteristics of our patients with TACE who were diagnosed with metastatic colorectal cancer. In this patients group, no factor affecting overall survival significantly significant was found. The patients who underwent RFA had a higher progression free survival than general group, such as 57 versus 43 months, but it's not statistically significant. Prospective randomized studies with more patients are needed on this subject.

Keywords: colorectal cancer, transarterial chemotherapy, radiofrequency ablation

OP-22

FACTORS AFFECTING PROGNOSIS IN PATIENTS WITH FIRST-STAGE COLORECTAL CANCER

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Background: Colorectal cancer is the second most common cause of death in men and 3 in women. Colorectal cancers are diagnosed mostly symptomatically with an advanced stage. Asymptomatic patients can be diagnosed at an early stage due to screening methods. Factors affecting prognosis are stage, histological grade, presence of mucinous type, negative surgical margin, tumor localization, lymphovascular invasion (LVI), perineural invasion (PNI), tumor deposits, nodal involvement, microsatellite instability, clinical presentation and molecular gene mutations and some other factors. Survival is the best in the first stage (stage I) tumors and its treatment is surgical and there is no adjuvant treatment recommendation.In our study, we aimed to evaluate the prognostic factors affecting the survival of patients with first-stage colorectal cancer.

Methods: The files of 58 patients who were examined in our clinic between January 2015 and December 2019 were diagnosed retrospectively. Demographic, clinical and pathological features were recorded.

Results: The mean age of patients, mostly male (58.6%), was 62 (26-82). When tumor localizations were examined, the most common tumors were rectal (53.4%), then left colon (24.1%) and right colon (22.4%). Pathologically, all patients had adenocarcinoma histology and mucinous tumor was present in only one patient. Considering other pathological features, LVI was observed in 10 (17.2%) patients and PNI in 6 (10.3%) patients. Median tumor size is 35 mm and categorization for prognostic analysis was made according to this value. Other categorizations were made for age (cut-off 65 years) and tumor localization (colon-rectum).Median survival was not achieved during the median follow-up period of 30 (range; 2-80 months) months. The overall 5-year survival rate of the patients was 90%. According to the age category, the 5-year survival of patients younger than 65 years was 95%, while the 5-year survival was 83% in the group of patients older than 65 years (p <0.001). In the examination made according to the tumor size, the 5-year survival of those with a tumor size less than 35 mm was 93%, while the 5-year survival of those larger than 35 mm was 88% (p <0.05). The 5-year survival of patients with perineural invasion was 40%, and the 5-year survival of patients without PNI was 95% (p <0.001). There was no difference in survival in terms of tumor localization (colon-rectum) and the presence of LVI. In multivariate analysis, PNI was detected as an independent prognostic factor. The 5-year survival of patients with perineural invasion was reduced by 10.9 times.

Conclusion: In the study, PNI was found to be an independent prognostic factor in patients with first-stage colorectal cancer. The age above 65 years and tumor size greater than 35 mm created a difference in survival in univariate analyzes. In terms of tumor localization and LVI, no survival differences were attributed to patient population characteristics.

Keywords: Colorectal cancer,first stage,prognosis

Table 1. Demographic and clinicopathological features of patients and univariate analysis results

	N (Patient numbers)	*% (Percent)*	*5 year survival rate (%)*	*p*
Age (categoric)				
≤65	33	56.9	95	<0.001
>65	25	43.1	83	
Gender				
Male	34	58.6	88	>0.05
Female	24	41.4	93	
Tumor localization				
Right colon	13	22.4		
Left colon	14	24.1	90 (entire colon)	>0.05
Rectum	31	53.4	90	
Lymphovascular invasion				
Present	10	17.2	87	>0.05
Absent	48	82.8	90	
Perineural invasion				
Present	6	10.3	40	<0.001
Absent	52	89.7	95	
Mucinous feature				
Present	1	1.7	No univariate analysis was performed due to imbalance between groups	
Absent	57	98.3		
Tumor size				
≤35 mm	30	51.7	93	<0.05
>35 mm	28	48.3	88	

OP-23

PROGNOSTIC IMPACT OF METABOLIC PARAMETERS IN ESOPHAGUS CANCER STAGING WITH F-18 FDG-PET/CT

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Purpose: We aimed to investigate the positron emission tomography (PET) metabolic parameters of the primary tumor and metastatic lymph node in predicting survival in patients with esophageal cancer.

Methods: We retrospectively analyzed patients with esophageal cancer between December 2014 and February 2020 who had F-18 FDG-PET/CT staging. All patients were followed-up to October 2020. Clinical staging, histopathological features of the primary tumor, locoregional, and distant nodal involvement, distant organ metastasis, and survival data were evaluated by comparing F-18 FDG PET/CT metabolic parameters.

Results: Eighty-one patients (25 female, 56 male) were included in the study. The mean SUVmax of the primary tumor and metastatic lymph node was 23.8±11.6 and 11.1±8.7, respectively. Primary tumor F18 FDG uptake associated with increased diameter (>1cm) of the locoregional metastatic lymph node. High F-18 FDG uptake of locoregional metastatic LN was associated with shorter survival whereas primary tumor SUVmax did not have an effect on survival. 20 patients have distant nodal metastasis (DNM) and 11 patients have distant organ metastasis; lung and liver (DOM). Median survival found shorter in DNM and DOM patients.

Conclusions: F-18 FDG-PET/CT is a widely used imaging method in esophageal cancer staging. Among patients with esophageal cancer, the value of primary tumor SUVmax did not have an effect on survival. The clinical-stage assessed with FDG PET/CT imaging was found to be predictive in esophageal carcinoma survival. Additionally, lymph node SUVmax was identified as a new parameter in predicting survival in the present study.

Keywords: FDG-PET/CT, Esophageal cancer, survival, SUVmax

OP-24

THE RELATIONSHIP BETWEEN SYSTEMIC IMMUNO INFLAMMATION INDEXES AND PATİENT FACTORS IN METASTATIC PANCREAS CANCER

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Purpose: Pancreatic cancer is one of the most aggressive cancers. In this study, we aimed to determine whether integrated markers that better reflect local immune response and systemic inflammation and based on clinically available peripheral neutrophil, lymphocyte and platelet counts are associated with treatment response and survival in pancreatic cancers.

Material and Methods: We retrospectively evaluated the clinical, pathological and prognostic features of 75 patients who were diagnosed with metastatic pancreatic adenocarcinoma and who treated between January 1, 2012 and September 1, 2019 at Trakya University Medical Faculty, Medical Oncology Department. Since systemic inflammation markers did not have agreed threshold values in the literature, we determined the median values to be used as threshold values in our study.

Results: We found that the overall survival was longer in patients with lower than neutrophil/lymphocyte ratio (NLR) median value (<3) (p=0.001). We determined that the high platelet count (≥235.10³) was related to longer progression-free survival (p=0.02) and similarly, higher PCT (≥0.22) was related to longer progression-free survival (p=0.01). We found that the overall survival of patients with an ECOG score of 0-1 was longer than that of patients with an ECOG score of 2 (p= 0.003). We determined that the overall survival in patients with the first series of disease control was longer than those without disease control (p=0.002).

Conclusion: Our study showed that NLR may be an independent marker predicting overall survival in patients with metastatic pancreatic cancer, and progression-free survival is associated with platelet count and plateletcrit.

Keywords: Metastatic pancreatic cancer, survival, neutrophil lymphocyte ratio, platelet

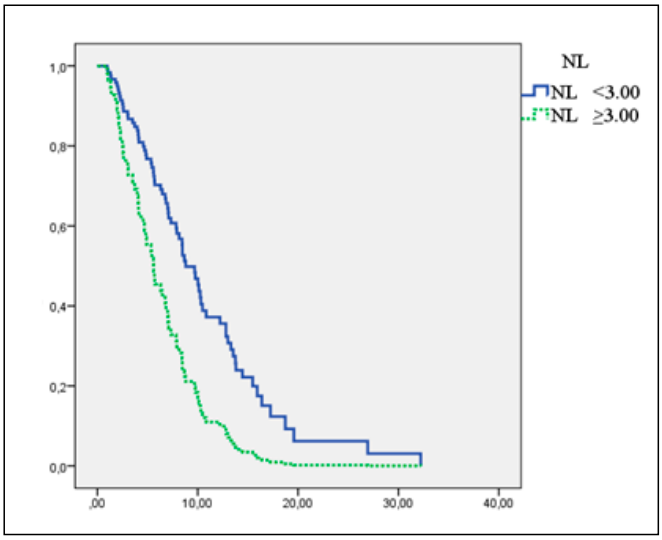

Figure 1. NLR – OS graph

Tablo 1. Multivariate analysis of systemic inflammation markers predictive of overall survival

	HR	*%95 CI*	*P value*
CA 19.9 Normal Elevated	1.28	0.66-2.45	0.45
NLR < 3 ≥ 3	2.23	1.37-3.65	0.001
PLT < 235 ≥235	0.80	0.50-1.27	0,35
MPV < 9.28 ≥ 9.28	0.82	0.49-1.35	0.43
PCT < 0.22 ≥ 0.22	0.77	0.47-1.25	0.29
PDW <.16.90 ≥ 16.90	1.43	0.88-2.32	0.15
SII < 768 ≥ 768	1.41	0.88-2.25	0.15

OP-25

THE EFFICACY OF FOLFIRINOX IN THE FIRST-LINE TREATMENT OF METASTATIC BILIARY TRACT CANCER: SINGLE-CENTER EXPERIENCE

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Introduction: The locally-advanced or metastatic biliary tract cancer (BTC) is a deadly disease with limited options. The development in the treatment arsenal is slow and gemcitabine plus cisplatin is still the standard of care treatment in the first-line after the ABC-02 study. The combination of oxaliplatin, irinotecan, fluorouracil, and leucovorin (FOLFIRINOX) has improved the patient outcomes in the treatment of metastatic pancreatic cancer and studied in several other gastrointestinal (GI) cancers including colorectal cancer and gastric cancer. However, the data on this regimen in BTC is scarce. From this point, we aimed to evaluate our experience with FOLFIRINOX in the first-line treatment of advanced BTC.

Methods: The data of advanced BTC patients treated with FOLFIRINOX in the first-line between 06/2016 and 07/2019 at Hacettepe University were retrospectively evaluated. The FOLFIRINOX was given two-weekly intervals with the doses of oxaliplatin 85 mg/m^2, irinotecan 180 mg/m^2, leucovorin 400 mg/m^2, fluorouracil 400 mg/m^2 bolus followed by 2400 mg/m^2 continuous infusion for 46-hours. The baseline patient demographics, primary tumor localization (intrahepatic, extrahepatic, or gall-bladder), disease stage, sites of metastases, the starting date of treatment, the best response to FOLFIRINOX, and the date of progression were recorded together with survival data. Baseline features were expressed with medians and percentages wherever appropriate. The survival analyses were conducted via the Kaplan-Meier analyses. The statistics were performed via the Statistical Package for Social Sciences version 22 program.

Results: A total of 14 patients was included in the study. The median age of the patients was 59 (36-74) and 64.3% of the patients were male. The patients with intrahepatic tumors corresponded to most of the patients (57.1%). The overall response rate was 28.5% (1 cr, and 3 pr) and the disease control rate was 64.3%. In the median follow-up of 14.23±2.52 months, 12 patients died and all patients progressed. The median progression-free survival and overall survivals were 4.19±2.11 and 14.19±0.43 months, respectively. All but one patient used prophylactic granulocyte-colony stimulating factors. During treatment, most patients had manageable adverse events (mostly grade 1 and 2 hematologic adverse events and diarrhea) and 28.5% of the patients had dose reductions. Post-progression treatments were possible in 9 of the 14 (64.3%) patients.

Conclusion: In our experience, FOLFIRINOX was associated with comparable outcomes to historical data with Gemcitabine and Cisplatin combination with a manageable side effect profile. We think that FOLFIRINOX could be a valid option in the first-line treatment of advanced BTC and should be evaluated in the comparative clinical trials.

Keywords: biliary tract cancer, cholangiocarcinoma, FOLFIRINOX

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OP-26

EVALUATION OF THE RELATIONSHIP BETWEEN ABO BLOOD GROUPS AND HER2 POSITIVE GASTRIC CANCER

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Background: Aird et al. discovered the relationship between gastric cancer and blood group A in 1953. The ABO antigens are highly expressed on the surface of the gastrointestinal tract's epithelial cells, and alterations in surface glycoconjugates on the cell may trigger the development of gastric cancer. This study aimed to evaluate the prognostic significance and distributions of ABO/Rh blood group in HER2 positive gastric cancer.

Methods: The data of 112 patients were retrospectively reviewed. The ABO blood groups, clinical and histopathological data of the patients were recorded. The ABO blood group distributions of the patients were compared to healthy donors (n:130,909) by the chi-square test.

Results: The median follow-up period was 15.5 months (range: 1.07-81.1). The percentages of female and male patients were 29% and 71%, respectively. The median age at diagnosis was 61 years (range: 24-91 years). The median OS was 17.9±2.3 months (13.2-22.5 months). Overall distributions of ABO blood groups were different between patients (57.1% A, 10.7% B, 6.3% AB, 25.9% O) and controls (41.87% A, 15.29% B, 7.91% AB, 34.93% O) (p=0.013). The distribution of Rh factor was comparable between patients and the control group (p=0.074). In univariate analysis, ABO blood groups were not a prognostic factor for OS.

Conclusions: In this study, we determined that when compared healthy population, A blood group frequency was increased in patients with HER2 positive gastric cancer. Also, we detected that the O blood group frequency was decreased. The O blood group may be protective for HER2 positive gastric cancer

Keywords: Gastric cancer, HER2, ABO Factors, prognosis

OP-27

SMALL BOWEL ADENOCARCINOMA: A RETROSPECTIVE ANALYSIS

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Background: Small bowel adenocarcinoma (SBA) is a rare tumor, and prognosis data is limited. We aimed to evaluate the outcomes and prognostic factors in SBA.

Method: Twenty-two patients were evaluated. Clinicopathological features and treatment approaches were retrospectively recorded. SPSS version 25 was used for statistical analysis. Kaplan-Meier and Cox-Regression analysis were used to assess overall survival and prognostic factors.

Results: Median age was 57 years (27-80). The ratio of male/female was 1.45. The most common symptoms in the presentation were pain (50%), and 18% of the patients had with ileus. The origin sites of the tumor were duodenum (50%), jejunum (31.8%), and ileum (18.2%). The number of de-novo metastatic patients was 11 (50%). Sixteen (72.7%) of the patients underwent surgery. The most common metastatic sites were periton

(%45), liver (41%), and lymph nodes (18%). The median follow-up was 14.7 (0.4-72.3) months, and the median overall survival (OS) 19.9 (7.3-32.5). One- and two-years survival ratios were 65.9% and 39%, respectively. The response ratio of first-line chemotherapy in metastatic patients was 46.2%. In multivariate analysis, surgery (p=0.024) and age at diagnosis (p=0.017) were statistically significant prognostic factors for OS.

Conclusions: We observed that removing the primary tumor was improved survival, and being older 60 years was a negative prognostic factor. Due to the delay of diagnosis, patients were diagnosed in advanced stages, and the prognosis of the disease was poor.

Keywords: Adenocarcinoma, duodenum, ileum, jejunum, prognosis

OP-28

TRANSCRIPTOMIC ANALYSIS OF HBV INFECTED LIVER TO ASSESS HEPATOCELLULAR CARCINOMA RISK

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Hepatocellular cancer (HCC) is a leading cause of cancer related mortality worldwide. Chronic Hepatitis B Virus infection (CHB) is responsible from majority of the cases. Pathogenesis of HBV related HCC has been a major focus revealing the interplay of a multitude of intracellular signaling pathways, yet the precise mechanisms and their implementations to clinical practice remains to be elucidated. This study utilizes publically available transcriptomic data from livers of CHB patients in order to identify a higher-risk population to pave the way to individualized screening. We identified a novel list of genes which can generate clear transcriptomic sub-groups among HBV infected livers. One of the groups, named "high risk", showed increased expression of cell cycle related genes and enrichment of liver cancer gene-sets in GSEA analyses, in addition an increased level of M1 macrophages and T cell infiltration. Collectively, our data suggests a novel gene expression based strategy for exploration of players in HCC risk which may contribute to therapeutic routines.

Keywords: HBV, HCC, Pathogenesis, Transcriptomic analysis

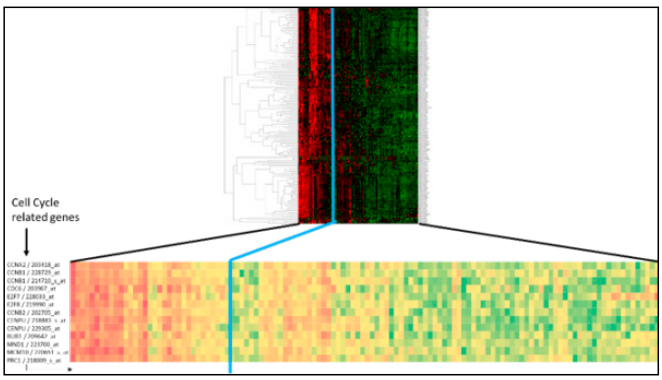

Figure 1. Cell cycle related genes are upregulated in high risk group. Upper panel shows hierarchical clustering analysis of HBV infected liver samples (GSE83148 dataset) based on the expression 176 genes identified (red: high expression, green: low expression). "High risk" (left) and "Low risk" (right) groups are divided at the blue line. Lower panel indicates expression of 13 cell cycle related genes (red: high expression, green: low expression).

OP-29

EFFICACY AND SAFETY OF FOLFIRI/AFLIBERCEPT IN PREVIOUSLY TREATED METASTATIC COLORECTAL CANCER PATIENTS (TOG STUDY)

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Purpose: The VELOUR trial demonstrated significant overall survival (OS) and progression free survival (PFS) benefit with combined FOLFIRI/Aflibercept in metastatic colorectal cancer (mCRC) patients previously treated with oxaliplatin with or without bevacizumab. Routine clinical practice data may differ from clinical trials. This aim of our study is to evaluate efficacy and safety of patients with metastatic colorectal cancer who received FOLFIRI/Aflibercept in the second line treatment.

Methods: Patient's demographics, including survival data and tumor characteristics, were obtained from medical charts. Patients who were treated with FOLFIRI-Aflibercept regimen in metastatic colorectal patients previously treated with oxaliplatin regimen regardless of RAS status were included. Tumors with missing values were omitted from the analyses. Overall survival (OS), progression free survival (PFS) and response rate and safety were analyzed. Kaplan–Meier survival analysis was carried out for DFS and overall survival OS. The logrank test was used to examine the statistical significance of the differences observed between the groups. Two-sided P values of\0.05 were considered statistically significant.

Results: A total of 435 patients treated with FOLFIRI plus aflibercept regimen from 35 centers across Turkey were included. Median age of participants was 61 years. Most patients (87.5%) received first line bevacizumab and 10.1% patients received anti-EGFR agents. In patients with avaliable biomarker data for KRAS (n=421), 80% of patients had KRAS gene mutation, for NRAS (n=290) 18.6% of patients had NRAS gene mutations and for BRAF gene mutation (n=250), 6.4% of patients had BRAF mutation. Median treatment of FOLFIRI plus aflibercept was 6 cycle. Median OS was 8.6 months (IQR:9.4) and median PFS was 5.3 months (IQR:5.4) in all patients. Median OS in RAS mutant and wild patients were 8.4 (IQR:9.3) and 10.1 (IQR:10.6) months, respectively. Median PFS in RAS mutant and wild patients were 5.2 (IQR:5.3) and 5.7 (IQR:5.6) months, respectively. 4.6% patients achieved complete response and 30.6% patients achieved partial response as best tumor response. Grade 1-2 toxicities were seen in 33.4% of patients, while grade 3-4 toxicities were observed in 27%. 8 patients (%2) died due to toxicity. Hypertension developed in 5.8% of the patients and development of hypertension did not affect OS and PFS.

Conclusions: In our study, OS and PFS were found in routine clinical practice compared to the VELOUR trial. However, response rates were found to be higher. Fewer adverse events were observed in our study compared to the VELOUR study.

Keywords: Colorectal cancer, Aflibercept, Second line, Real life data, Experience

OP-30

PROGNOSTIC AND PREDICTIVE MARKERS OF FOLFIRI/AFLIBERCEPT IN PATIENTS WITH METASTATIC COLORECTAL CANCER (TOG STUDY)

Cihan Erol[1], Mutlu Hızal[2], Irem Bilgetekin[3], Sinem Akbas[4], Duygu Bayir Garbioglu[5], Jamshid Hamdard[6], Cagatay Arslan[7], Alper Sevinc[8], Ahmet Kucukarda[9], Dilek Gurgenyatagi[10], Emre Cakir[11], Aykut Demirkiran[12], Murat Araz[12], Sercan On[13], Izzet Dogan[14], Atike Pinar Erdogan[15], Sinan Koca[16], Pinar Kubilay[17], Onder Eren[18], Deniz Tataroglu Ozyukseler[19], Mahmut Emre Yildirim[19], Ebru Cilbir[20], Emir Celik[21], Aykut Bahceci[22], Halil Taskaynatan[23], Abdulkerim Oyman[24], Gulhan Ipek Deniz[25], Serkan Menenekse[26], Engin Kut[26], Ahmet Gulmez[27], Abdullah Sakin[28], Erdinc Nayir[29], Ramazan Acar[30], Seda Kahraman[1], Erdem Sen[31], Ali Inal[32], Serdar Turhal[33], Ali Osman Kaya[34], Semra Paydas[35], Didem Tastekin[14], Ilhan Hacıbekiroglu[11], Irfan Cicin[9], Ahmet Bilici[6], Didem Sener Dede[1], Muhammed Bulent Akinci[1], Nil Molinas Mandel[36], Berna Oksuzoglu[3], Dogan Uncu[2], Bulent Yalcin[1], Mehmet Artac[12], Mehmet Ali Nahit Sendur[1]

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Purpose: The VELOUR trial demonstrated efficacy with combined FOLFIRI/Aflibercept in patients with metastatic colorectal cancer (mCRC) previously treated with oxaliplatin with or without bevacizumab. This study reports subgroup analysis of Turkey real life data. Overall survival (OS), progression free survival (PFS) results were presented separately.

Methods: 435 patients from 35 centers from Turkey were analyzed retrospectively. Prognostic and predictive factors affecting efficacy were identified.

Results: The general condition of the majority of patients was good (PS 0-1 %89.5). Primary tumor was operated in 58.9% of patients, 86.2% were RAS mutant and 18.2% of patients had metachronous metstasis. PFS was longer in patients with metachronous metastases than synchronous (6.7 vs 4.8 months, p=0.043). Patients with better ECOG performance scores (0-1) had significant OS and better PFS results than those with worse ECOG performance status (2-3) (p<0.001 for OS). Similarly, OS and PFS were found to be better in patients with primary tumor operation than in non-operated patients (p<0.001 for OS). Patients with liver or brain metastases were found to be lower than those without OS and PFS (OS for both of them, p<0.001). NLR (Neutrophil to lymphocyte ratio) ratio, number of metastasis sites, tumor location, RAS status, and the use of bevacizumab in the firstline did not affect OS and PFS.

Conclusions: In this study, in the subgroups analysis, those with liver and brain metastases had a worse prognosis. Survival outcomes were not affected by NLR ratio, number of metastasis sites, tumor location, RAS status, and the use of bevacizumab in the firstline.

Keywords: Metastatic colorectal cancer, Aflibercept, FOLFIRI, Clinical practice, Prognostic markers

OP-31

EVALUATION OF PROGNOSTIC FACTORS AND TRASTUZUMAB-BASED TREATMENTS IN HER2-POSITIVE METASTATIC GASTRIC CANCER

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Background: The study aims to evaluate the trastuzumab-based chemotherapy in HER2 positive gastric cancer.

Methods: The data of 63 patients were retrospectively reviewed. The demographic, histopathological, and clinical features of the patients were recorded. Chemotherapy regimens that are DCF+T (docetaxel, cisplatin, fluoropyrimidine, and trastuzumab), PF + T (platinum, fluoropyrimidine, and trastuzumab), and C+T (capecitabine and trastuzumab) were compared to by log-rank test.

Results: The median follow-up period was 12.9 months (range: 1.2-80.2 months). The median age at diagnosis was 60.5 years (range: 27-91 years). The percentages of female and male patients were 27% and 73%, respectively. The number of *de novo* metastatic patients was 44 (69.8%). The median OS was 13.6±2.8 months (8-19.3 months). With trastuzumab-based chemotherapy, the complete response rate was 6.3%, partial response 39.7%, and stable response 9.5%. Chemotherapy regimens were not different for overall survival (OS) (p=0.452) and progression-free survival (PFS) (p=0.893). The ratio of grade 1-2 toxicity was 79.6%, and grade 3-4 toxicity 20.6%. In multivariate analysis, ECOG performance status (p<0.001) and having three or more sites of metastasis (p=0.001) were a negative prognostic factor on OS.

Conclusion: In this study, we determined that adding taxane in fluoropyrimidine and platinum regimens were not affect OS and PFS. We also observed that three or more metastasis sites and poor EGOC performance status were negative prognostic factors for OS.

Keywords: Gastric Cancer, HER2, prognosis, treatment

OP-32

FLOT REGIMEN IN PATIENTS WITH METASTATIC GASTRIC ADENOKARSINOMA AS FIRST-LINE TREATMENT: A SINGLE CENTER EXPERIENCE

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Aim: The FLOT regimen has become the standard as neoadjuvant therapy in patients with locally advanced gastric and gastroesophageal adenocarcinoma. Since triplet chemotherapy regimens are not tolerable, usually doublet regimens are prefered in the treatment of metastatic gastric adenocarcinoma. We aimed to evaluate the survival and adverse event data of the more tolerable FLOT regimen.

Method: Twenty-three patients who were admitted to Gazi University Hospital Medical Oncology Clinic and received FLOT regimen as first-line treatment with a diagnosis of HER2(-) metastatic gastric and GEJ adenocarcinoma were included in the study. Medical records of patient were retrospectively retrieved. The survival and haematological adverse events of the patients were examined and descriptive statistics were conducted.

Results: Median age at diagnosis was 57 (IQR: 47-66). Geriatric population accounted for 30.4% (n = 7) of the patients. Fourteen patients (60.9%) were male. Liver was the most common metastatic site (%52.2). There was single metastatic region in 69.6% of patients (n = 16) (Table1). It was observed that mPFS was 15.6 months (%95 CI, 0.5-30.7) with FLOT regimen (Figure 1). Although the rate of performing primary GCSF prophylaxis was 73.9%, neutropenia developed in 47.8% of the patients, but only 17.8% of them were grade 3-4 neutropenia. One febrile neutropenia was observed. Anemia was observed 82.6% of patients. Treatment cessation rate due to hematological advers events was %8.7 (Table 2).

Conclusion: It was shown that the FLOT regimen might be an effective treatment option for patients with metastatic gastric adenocarsinoma as first-line treatment.

Keywords: metastatic gastric cancer, FLOT regimen

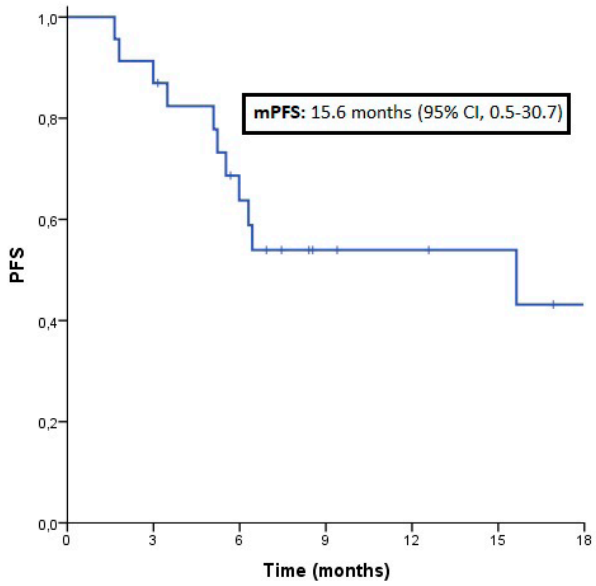

Figure 1: Progression-free survival (PFS) in patients with metastatic gastric cancer with FLOT regimen as first-line treatment.

Figure 1. Progression-free survival in patients with metastatic gastric cancer with FLOT regimen as first-line treatment

Table 1: Petient characteristics

Variable	Value
No. of patients, n (%)	23 (100)
Median age at diagnosis, *years (IQR)*	57 (47-66)
Elderly, *n (%)*	
<65 year-old	16 (69.6)
≥65 year-old	7 (30.4)
Sex, *n (%)*	
Female	9 (39.1)
Male	14 (60.9)
Metastatic situation at initial diagnosis, *n (%)*	
Non-Metastatic	2 (8.7)
Metastatic	21 (91.3)
Metastatic regions, *n(%)*	
Liver	12 (52.2)
Peritoneum	10 (43.6)
Bone	2 (8.7)
Others	6 (26.1)
No. of metastatic regions, *n (%)*	
<2	16 (69.6)
≥2	7 (30.4)
Primary localisation, *n (%)*	
Cardia + EG junction	10 (43.5)
Fundus + Corpus	10 (43.5)
Antrum + Pylorus	3 (13)
Differantiation, *n (%)*	
Well	2 (8.7)
Moderate	7 (30.4)
Poor	12 (52.2)
Mucinous tumor, *n (%)*	9 (39.1)
ECOG PS, *n (%)*	
0-1	21 (91.3)
2	2 (8.7)
Median duration of follow-up, *months (min-max)*	7.4 (1.6-32.6)
Median duration of treatment, *months (min-max)*	6.4 (1.6-32.6)

Table 2: Treatment exposure and hematologic advers events

	FLOT	
Toxicities, *n* (%)	**Grade 3-4**	**All Grades**
Neutropenia	4 (17.3)	11 (47.8)
Anemia	3 (13)	19 (82.6)
Thrombocytopenia	0 (0)	13 (56.5)
Febrile neutropenia	1 (4.3)	
Parameters		
Primary GCSF prophylaxis, *n* (%)	17 (73.9)	
Secondary GCSF prophylaxis, *n* (%)	2 (8.7)	
Median duration of follow up, *months* (min-max)	7.4 (1.6-32.6)	
Median duration treatment, *months* (min-max)	6.4 (1.6-32.6)	
≥1 dose reduction, *n* (%)	3 (13)	
≥1 dose delay (%), *n* (%)	7 (30.4)	
Treatment cessation, *n* (%)	2 (8.7)	

OP-33

THE EFFICACY OF TEMOZOLOMIDE AND CAPECITABINE (CAPTEM) COMBINATION IN METASTATIC GASTROINTESTINAL NEUROENDOCRINE TUMORS

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Background: The study aimed to evaluate patients' outcomes and prognosis with metastatic gastrointestinal neuroendocrine tumors (mgNET) who treated temozolomide and capecitabine (CAPTEM).

Method: The data of forty-three patients were retrospectively evaluated. Clinicopathological features and treatment approaches were recorded. Kaplan-Meier analysis was used for overall survival (OS) and progression-free survival (PFS). Prognostic factors were assessed with Cox-regression analysis.

Results: The number of male and female patients was 23 (53.5%) and 20 (46.5%), respectively. The median age was 59 (27-85) years. Pancreas (51.2%) was the most common site of the tumor. The number of patients with well- and poorly-differentiated mgNET was 38 (88.4%) and 5 (11.6%), respectively. The most common metastatic sites were liver (62.8%), lymph node (58.1%), and bone (18.6%). Eleven (25.6%) of the patients previously had undergone surgery, and some patients had received radiotherapy (9.5%), chemotherapy (%19), and nuclear therapy (9.3%). Also, patients received octreotide (86%) or lanreotide (14%) with CAPTEM. In patients with well-differentiated mgNET, median PFS was 17.4 months, and disease control ratio 79.4% (3%-complete response, 38.2%-partial response, and 38.2%-stable response). No response observed in patients with poorly differentiated mgNET, and the median PFS was calculated as 4.5 months. Grade 1-2 toxicity was observed in 34 (79.1%) of the patients, and grade 3-4 toxicity in 8 (18.6%). Four (9.5%) patients discontinued therapy for the toxicity. The most common toxicities were anemia (37.2%), thrombocytopenia (25.6%), and fatigue (16.3%). At a median follow-up of 33.8 (2.9-172.73) months, the five-year OS ratio was 61%.

Conclusions: In the study, we showed that CAPTEM + somatostatin receptor ligands (octreotide or lanreotide) were effective and well-tolerated in patients with well-differentiated mgNET. But, it was not effective in patients with poorly-differentiated mgNET.

Keywords: Gastrointestinal Neoplasms, neuroendocrine tumors, temozolomide, capecitabine,

OP-34

SINGLEINSTITUTIONAL OUTCOME AND TOXICITY ANALYSIS OF STEREOTACTIC BODY RADIATION THERAPY OF ADRENAL GLAND METASTASES

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Purpose: In this study; we aimed to evaluate the treatment outcomes and toxicity analysis of stereotactic body radiation therapy (SBRT) applied to the adrenal gland by using three-dimensional (3-D) surface monitoring and deep inspiration breath-hold technique (DIBH) in patients diagnosed with any cancer and with adrenal metastasis.

Methods and materials: This single-institution study was limited to patients with adrenal metastases and less than 5 sites of metastasis who received SBRT between January 2016 and May 2020. Twenty patients who met these criterias were included in the study. Metastases were confirmed by both fluorodeoxy-glucose-positron emission tomography (FDG-PET) and Magnetic resonance imaging (MRI). Planning tomografy (CT) images was taken with deep inspiration breath-hold technique. Breath-hold level was recorded by infrared reflecting marker and camera using three dimensional surface tracking by Real-time Position Management system (Varian) during the CT procedure. Tumor and treatment characteristics and dosimetric parameters were analyzed.

Results: The median age was 60 years (range=35-78). The most common primary tumor was nonsmall cell lung cancer (45%). While irradiation was performed with the single volumetric modulated arc technique in 19 patients, the intensity modulated technique was used in only 1 patient. Median gross tumor volume (GTV) and median planning target volume (PTV) were 12 and 18, 1 mL, respectively. Median biological effective dose at α/β of 10 (BED_{10}) of 75 Gy (range: 43,2 – 57,6 Gy). Twenty patients received SBRT doses of 24 to 36 Gy in 3 to 6 fractions. The homogeneity and conformity indices were 1.02(range: 1.02–1.14) and 1.1 (range: 1.02- 2.04). Treatment outcome and tumor response were performed according to the RECIST. Five of the patients (25%) had complete response and partial response was observed in 9 (45%) patients. When acute side effects were evaluated according to Common Terminology Criteria for Adverse Events (CTCAE) v6.0, 4 (20%) patients had grade I fatigue, 3 (15%) patients had gastrointestinal toxicity and 3 (15%) patients had anorexia. When the chronic side effects were evaluated, 2 (20%) patients had grade I fatigue and 1 (15%) patient had abdominal pain.

Conclusion: SBRT has always been distant from adrenal metastasis due to the proximity of organ at risk, the necessity of the latest technological techniques and the lack of sufficient studies. The results of this study showed; Regardless of primary, low-dose SBRT is an effective and safe treatment modality in patients with adrenal metastases. In our study, 70% treatment response was achieved. Based on these results; Low dose SBRT and fewer side effects in patients with adrenal metastasis; as well as providing a high treatment response.

Keywords: Adrenal gland metastases, Stereotactic body radiotherapy (SBRT), Breath-hold technique (DIBH)

Table 1. Tumor, Treatment Characteristics and Doses

Gender	***n***	***%***
Male	12	60
Female	8	40
Primary tumor site		
NSCLC	9	45
SCLC	1	5
Breast Cancer	3	15
Rectum Cancer	1	5
RCC	1	5
Other	5	25
Number of metastatic site		
1	11	55
2	3	15
3	4	20
4	1	5
5	1	5
Laterality		
Left	14	70
Right	6	30
RT Technique		
VMAT	19	95
IMRT	1	5
Concurrent Systemic Therapy		
No	12	60
CT	6	30
Targeted Therapy	1	5
Immunotherapy	1	5
	Median	Mean
Total dose (Gy)	34,9	35(24-36)
Fractions (n)	5,3	5(3-6)
Single dose (Gy)	6,6	7(6-8)
BED10 (Gy)	53	49,5(43,2-57,6)
Prescribed Isodose Line	97,7	98(95-99)
Median GTV volume (cm3)	46	12(2,5-521,8)
Median PTV volume (cm3)	57,2	18,1(4,6-627,4)

Table 2. Treatment Outcomes According to RECIST

Clinical Response	***n***	***%***
Complete Remission	5	25
Partial Remission	9	45
Stable Disease	4	20
Progressive Disease	2	10

Table 3. Toxicity According to CTCAE

Acute Toxicity	***n***	***%***
Fatigue	4	20
Gastrointestinal	3	15
Abdominal Pain	0	0
Anorexia	3	15
Chronic Toxicity	n	%
Fatigue	2	10
Gastrointestinal	0	
Abdominal Pain	1	5
Anorexia	0	

OP-35

GARLIC-DERIVED EXOSOME-LIKE NANOVESICLES MAY ALTER THE MUTATIONAL STATUS OF RAS ONCOGENES IN COLON CANCER IN RATS

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Backround/aim: Exosome-like nanovesicles found in edible-plants have shown therapeutic activity in cancer; however information on their exact role in preventing colon cancer progression is unclear. Thus, we investigated the effect of garlic derived exosome-like nanovesicles (GDELN) on RAS proto-onkogenes gene family during azoxymethane (AOM)-induced colon carcinogenesis.

Methods: A total of 40 rats were randomly divided into four study groups with 10 rats in each group [group 1: control group; group 2: only AOM injected group; group 3: AOM injected and fed with exosome (250 μg/kg/day); group 4: AOM injected and fed with exosome (500 μg/kg/day)]. AOM was administered to all groups except the control group weekly as subcutaneous injections of at a dose of 15 mg/kg body weight for 3 weeks. In order to determine gene mutations in K-RAS, and H-RAS genes, DNA extraction, and PCR were used.

Results: In the H-RAS gene; when IVS 1 + 20 C> T, IVS 1 + 147 G> T and IVS 1+ 159 T> C mutations are evaluated, mutational changes were detected in groups (group 1: %100 normal; group 2: 100% homozygous; group 3: 50% heterozygous, 50% homozygous; group 4: %100 normal). Based on this determination; it was revealed that H-RAS gene mutations in group 4 completely transformed into normal nucleotides. Additionally, in terms of screening for K-RAS gene mutations; in the 4th group of colon cancer rats given the highest dose of GDELN; c-40 T> C, IVS 1 + 86 C> T, IVS 1 + 148 G> A, IVS 1 + 152 C> T, IVS 1 + 178 C> T, IVS 1 + 183 G> A, IVS 1+ 183 G> A mutation changes were detected as 100% normal.

Conclusion: GDELN may reverse the early stage of colon carcinogenesis by altering mutational status of the KRAS, and H-RAS genes.

Keywords: colon cancer, exosome, mutation

OP-36

IS MORE INTENSIVE CHEMOTHERAPY REASONABLE IN GASTRIC CANCER PATIENTS WITH PERITONEAL METASTASIS? A MULTICENTER STUDY

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Purpose: In advanced gastric cancer (AGC), peritoneal metastasis (PM) is the most frequent cause of poor prognosis and poor performance status (PS) that prevent chemotherapy (CT) administration. However, PM can present with many different clinical pictures. The aim of this study was to investigate the benefits and toxicity of CT at different dose intensities in clinically poor (CPPG) and good prognostic groups (CGPG).

Methods: 230 AGC patients were divided into three groups patients treated with triplet-therapy, doublet-therapy, and mono-therapy. The following information of the patients were noted: age, gender, tumor pathological type and differentiation, de novo or recurrent disease, presence of only peritoneal metastasis or not, peritoneal involvement at the beginning or after progression, history of palliative gastrectomy, PS (0-1 vs 2-3), ascites levels (grade 0-3 vs massive), status of oral intake (enough or inadequate), and renal function tests (Table 1). First, prognostic groups were determined based on evaluation of clinicopathological factors on survival (Table 2). Then, the efficacy and toxicity of dose intensity on survival were evaluated by Kaplan-Meier Method acoording to CPPG and CGPG.

Results: At baseline, 16.1% of patients had massive ascites, 30.9% of patients had ≥2 PS, and 33.5% of patients had inadequate oral intake. In the presence of one of these three clinical parameters, patients were included in the CPPG. Accordingly, 66.7% of patients were in the CPPG. Similar survival times were achieved at all three dose intensities in the CGPG (p>0.05), while the doublet-regimen was numerically superior in the CPPG (Table 2). As the dose intensity increased, grade 3/4 toxicity, dose delay and reduction rates increased (Table 3).

Conclusion: Triplet-therapy was not better for PM in AGC for CPPG and CGPG. However, doublet-therapies can be feasible and effective for AGC with PM, especially for the CPPG.

Keywords: Gastric cancer, peritoneal metastasis, dose intensity, prognosis, monotherapy

Table 1: Patients and Cancer Baseline Characteristics according to dose intensity

Characteristic	Triplet therapy No (%)	Doublet therapy No (%)	Monotherapy No (%)	P value
Gender: Female	56 (52.3)	24 (36.9)	10 (40.0)	0.12
Male	51 (47.7)	41 (63.1)	15 (60.0)	
Age, years				
Median (range): <65	97 (90.7)	49 (75.4)	9 (36.0)	*<0.001*
≥65	10 (9.3)	16 (24.6)	16 (64.0)	
De novo disease	88 (82.2)	44 (67.7)	12 (48.0)	*0.001*
Recurrence	19 (17.8)	21 (32.3)	13 (52.0)	
Undergoing palliative gastrectomy	24 (22.6)	19 (29.7)	8 (38.1)	0.27
None	82 (77.4)	45 (70.3)	13 (61.9)	
Peritoneal involvement in 1.line	105 (98.1)	61 (93.8)	21 (84.0)	*0.013*
Peritoneal involvement after progression	2 (1.9)	4 (6.2)	4 (16.0)	
ECOG performance status: 0-1	73 (73.7)	33 (55.9)	8 (36.4)	*0.002*
2-3	26 (26.3)	26 (44.1)	14 (63.6)	
Ascites grade				
Grade1-3	85 (85.0)	47 (77.0)	16 (72.7)	0.27
Massive	15 (15.0)	14 (23.0)	6 (27.3)	
Oral intake				
Poor	41 (55.4)	17 (42.5)	10 (66.7)	0.22
Enough	33 (44.6)	23 (57.5)	5 (33.3)	
Massive ascites or ECOC PS ≥2 or poor oral intake				
Presence	55 (67.1)	32 (64.0)	16 (80.0)	0.43
Absent	27 (32.9)	18 (36.0)	4 (20.0)	
Disease status				
De novo metastatic				
Recurrent				
Only peritoneal metastasis	56 (52.3)	33 (50.8)	15 (60)	0.72
Peritoneal with other sites	51 (47.7)	32 (49.2)	10 (40.0)	
Histology				
Intestinal adenocarcinoma	55 (51.4)	42 (64.6)	18 (72.0)	
Ring cell carcinoma	47 (43.9)	22 (33.8)	7 (28.0)	0.25
Mucinous adenocarcinoma	4 (3.7)	-	-	
Differentiation				
Well	5 (5.5)	2 (4.3)	3 (17.6)	0.064
Moderately	9 (9.9)	10 (21.3)	5 (29.4)	
Poor	66 (72.5)	32 (68.1)	8 (47.1)	
Undifferentiated	11 (12.1)	3 (6.4)	1 (5.9)	
Creatinin: ≤1.2 mg/dL	89 (97.8)	56 (91.8)	19 (90.5)	
>1.2 mg/dL	2 (2.2)	5 (8.2)	2 (9.5)	0.17
Ure				
≤ 40 mg/dL	78 (88.6)	53 (89.8)	20 (95.2)	0.82
> 40 mg/dL	10 (11.4)	6 (10.2)	1 (4.8)	
Second-line treatment				
Received	54 (52.9)	29 (48.3)	5 (22.7)	*0.036*
Was not eligible	48 (47.1)	31 (51.7)	17 (77.3)	

Table 2: Efficacy analysis acording to clinico-pathological factors and treatment dose intensity

	PFS, months			OS, months		
	median	95%CI	P value	median	95%CI	P value
CT intensity						
Tripletherapy	4.0	3.03-4.97		9.0	7.45-10.6	
Doubletherapy	6.0	4.48-7.51	0.48	9.0	7.32-10.7	0.39
Monotherapy	4.0	2.70-5.29		9.0	4.34-13.7	
Age <65	4.0	3.08-4.91	0.67	9.0	7.22-10.8	
≥65	4.0	1.98-6.01		9.0	7.08-10.9	0.71
Gender: Female	4.0	2.66-5.34	0.96	9.0	7.67-10.3	
Male	5.0	3.88-6.12		8.0	6.41-9.58	0.78
Differentiation						
Well	3.0	2.45-3.54	0.22	7.0	3.37-10.6	0.65
Moderately	6.0	2.74-9.26		10.0	4.91-15.1	
Poor	5.0	3.64-6.36		10.0	8.45-11.5	
Undifferentiated	6.0	3.98-8.02		10.0	7.56-12.4	
Histology						
Intestinal adenocarcinoma	4.0	3.13-4.87	0.34	9.0	7.26-10.7	0.50
Ring cell carcinoma	6.0	0,0-14.59		6.0	0.00-12.4	
Mucinous adenocarcinoma	5.0	3.58-6.41		9.0	6.79-11.2	
Only peritoneal metastasis	4.0	2.87-5.13	0.65	8.0	6.44-9.56	0.61
Peritoneal with other sites	4.0	2.68-5.32		9.0	6.84-11.2	
Peritoneal involvement						
1.line	5.0	4.14-5.86	0.54	9.0	7.51-10.5	0.19
After progression	3.0	1.47-4.53		7.0	4.78-9.22	
Disease status						
De novo metastatic	5.0	4.09-5.91	0.55	9.0	7.43-10.6	0.28
Recurrent	3.0	1.59-4.41		7.0	4.54-9.46	
Palliative gastrectomy	6.0	4.52-7.48	0.19	10.0	6.71-13.3	0.13
None	4.0	2.98-5.03		8.0	6.61-9.38	
ECOG performance status: 0-1	6.0	4.87-7.13	*<0.001*	11.0	9.57-12.4	
2-3	3.0	2.33-3.67		5.0	3.35-6.65	*<0.001*
Ascites grade: Grade1-3	5.0	4.09-5.91	*0.004*	10.0	8.41-11.6	
Massive	3.0	2.49-3.51		6.0	4.68-7.32	*0.003*
Oral intake: Poor	4.0	3.19-4.81	*<0.001*	7.0	5.02-8.98	
Enough	7.0	5.63-8.37		13.0	9.81-16.2	*<0.001*
Clinical prognostic groups: Poor	4.0	3.34-4.66	*<0.001*	7.0	5.64-8.36	
Good	7.0	5.09-8.90		15.0	11.82-18.2	*<0.001*
Creatinin <1.2	5.0	4.08-5.92	*0.023*	9.0	7.75-10.3	
≥1.2	2.0	0.99-3.01		3.0	0.00-7.65	*0.004*
Ure <40	5.0	4.08-5.92	0.038	9.0	7.36-10.64	*<0.001*
≥40	3.0	1.67-4.32		4.0	2.34-5.66	
Second-line treatment						
Did not Received				5.0	3.9-6.04	*<0.001*
Received				13.0	10.6-15.4	
Poor prognostic group						
Triple therapy				7.0	5.39-8.61	0.68
Double therapy				8.0	5.25-10.8	
Monotherapy				6.0	4.06-7.95	
Good prognostic group						
Triple therapy				15.0	11.0-18.9	0.81
Double therapy				16.0	8.74-23.3	
Monotherapy				15.0	10.2-19.3	

Table 3. Treatment Exposure, Discontinuation and Toxicity

	Tretments			*P value*
Parameters	***Triplet therapy***	***Doublet therapy Monotherapy***	***Monotherapy***	
At least 1 dose reduction, %	33.7	28.7	25.0	0.73
At least 1 cycle delay, %	34.5	38.8	16.7	0.35
Advers events, grade 3/4, in total	42.7	31.0	25.0	0.17
Cytopenia, grade 3/4	26.8	19.0	10.5	0.22
Liver function deteriorations, gade 3/4	4.9	7.7	0.0	0.54
Renal function deteriorations, grade 3/4	8.7	5.7	5.3	0.74
Cycles number, median (range)	5 (1-9)	6 (1-9)	1-13	
Rate of completion of first three cycles	86.0	82.3	81.8	0.77

OP-37

CLINICAL AND FOLLOW-UP RESULTS IN COLORECTAL CANCER DEVELOPING ON THE BASIS OF FAMILIAL ADENAMATOSIS COLI

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Introduction: Less than 1% of colorectal cancers are cancers that develop on the basis of FAP. In the literature, FAP-related colorectal cancers occupy less place in contrast to sporadic colorectal cancers. Even a small number of case series are important in this regard. I aimed to share the clinical experience of our center in such a rare disease group.

Material Methods: Twenty-six patients with colorectal cancer developing on the basis of FAP between 2015-2020 at the Yüksek İhtisas University Medikalpark Ankara Hospital were evaluated. Descriptive and survival statistics were obtained using SPSS 22 program.

Results: The median age of the 26 patients included in the evaluation was 38 (range: 19-62). Seventy three percent of the patients were male, 53.8% were located in the right colon, and 46.2% were in the right colon. When the depth of tumor invasion (T) was examined, it was distributed as 69.2% T3, 23.1% T4, regional lymph node involvement(N) 42.3% N1, 38.5% N2. When the stages were evaluated, 15.4% were early stage (Stage 1,2a, 2b), 57.7% were local advanced stage (Stage 2c, 3a, 3b, 3c), and 26.9% were advanced stage (stage 4). In those who developed metastasis at diagnosis and later, 46.1% had peritoneum, 53.8% liver and 23% lung metastasis. When primary surgery was evaluated, there was 61.5% total colectomy, 19.2% right and left colectomy rates. Ninety-four percent of the patients who received curative treatment received folfox or xelox chemotherapy as adjuvant therapy. In RAS and BRAF analysis, 76.9% of RAS mutations and 30.7% of BRAF mutations were found at diagnosis or later in the advanced stage. Recurrence was detected in 31.5% of the patients who were in the local and local advanced stage during their follow-up. When the data of the patients were evaluated, 46.2% of them had died. The median overall survival and time to recurrence could not be reached. When all-stage patients were evaluated, the 5-year OS was 36.1% in right colon located and 64.1% in left colon located.

Conclusion: In our series of colorectal cancer patients developing on the basis of FAP, it was found that the patients were at a younger age, more in males, most of them were at locally advanced stage, and the RAS mutation rate was high.Based on the location of the tumor in the right and left colon, it tended to be similar to sporadic colorectal cancer when looking at survival.

Keywords: Familial Adenamatosis Polipozis Coli, Colorectal Cancer , Clinic features

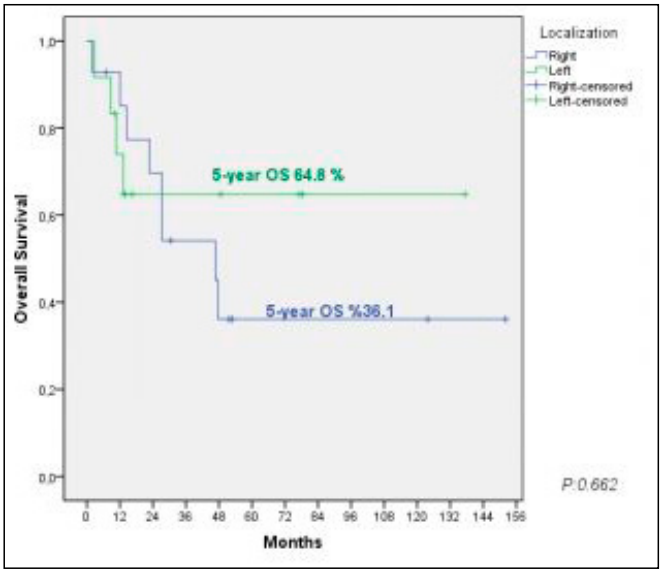

Figure 1. Five-year Overall survival according to tumor location

OP-38

PORTALMESENTERICVEINRESECTIONIN BORDERLINE PANCREATIC CANCER 31 MONTHS SURVIVAL IN PATIENTS WITH GOOD PERFORMANCE STATUS

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Background: Patients with pancreatic cancer (PC), which may involve major peripancreatic vessels, have been generally excluded from surgery, considering that resection in such a setting may be futile.

Materials and Methods: Retrospective analysis of prospectively collected data on patients with borderline pancreatic adenocarcinoma undergoing pancreatectomy en-block with portal and/or superior mesenteric vein resection in a tertiary referral center in Greece between January 2014 and March 2019. Follow-up was complete up to December 2019.

Results: Thirty patients were included. Neoadjuvant therapy was administered to only 47%, and was associated with smaller tumor size (median: 2.5cm vs 4.2cm, p=0.001), but not with survival. Venous wall infiltration was present in 63%, it was associated with larger tumor size (median: 4cm vs 2.7cm, p<0.05), and was more common in patients with ECOG) Performance status(PS) 1 vs 0 (ECOG-0: 50%, ECOG-1: 90%, p<0.05). Resection was extensive: a median of 24 LNs were retrieved, R0 resection rate (≥1mm) was 87%, and median length of resected vein segments was 3cm, requiring interposition grafts in 50% (polytetrafluoroethylene). Median ICU stay was 0 days and length of hospital stay 9 days. Postoperative mortality was 3.3%. Median follow-up was 20 months and median overall survival was 24 months. ECOG status was significantly associated with survival (ECOG-0: 31 months, ECOG-1: 13 months, p=0.002).

Conclusion: In a highly selected group of patients with borderline resectable pancreatic adenocarcinoma we reported those who underwent portomesenteric vein resection. Between these 30 patients a median survival of 24 months was demonstrated, while for those with PS of 0 it extended to 31 months. This was achieved with minimal postoperative mortality (1/30 Pts).

Keywords: borderline, pancreatic cancer

Poster Presentations

PP-01

RECTAL NEUROENDOCRINE TUMOR G2 WITH MULTIPLE LIVER METASTASES ; A CASE REPORT

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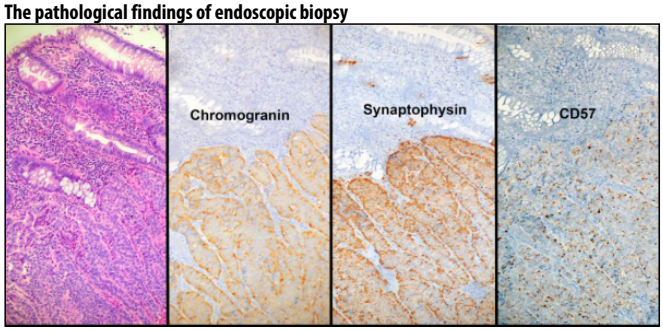
Neuroendocrine tumors (NETs) comprise a heterogeneous group of tumors that form a distinct entity. Approximately 75–80% of patients present with liver metastases at the time of their diagnosis, and 20%–25% will develop these lesions in the course of their disease. Rectal neuroendocrine tumor is a relatively rare tumor. NET is classified as G1, G2, or G3 according to the degree of mitosis or Ki-67 proliferation index, which reflect the malignant potential of the tumor, such as metastasis. Advanced cases with metastasis are indicated for chemotherapy treatment. However, the efficacy of chemotherapy is limited. Therefore, resection is considered, even in metastatic cases, if complete resection is possible. We report a case of small rectal NET discovered with hepatic metastasis classified as G2.

Keywords: rectalneuroendocrinetumor, liver metastasis, Ki-67

The pathological findings of endoscopic biopsy



PP-02

A RARE COINCIDENCE IN A RARE DISEASE; PANCREATIC NEUROENDOCRINE TUMOR IN A PATIENT WITH ERDHEIM-CHESTER DISEASE

Hatice Bolek[1], **Hakan Taban**[1], **Ertuğrul Cagri Bolek**[1], **Deniz Can Guven**[1], **Serkan Akin**[1], **Musturay Karcaaltincaba**[1], **Alev Turker**[1]

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Introduction: Erdheim-Chester Disease (ECD) is a rare non-Langerhans cell histiocytosis presenting with multiple systemic manifestations. Skeletal system, especially the long bones of the lower extremities, is the most commonly effected part of the body, and the most common symptom is bone pain. In this abstract, we present a novel case of ECD with an accompanying pancreas neuroendocrine tumor (NET).

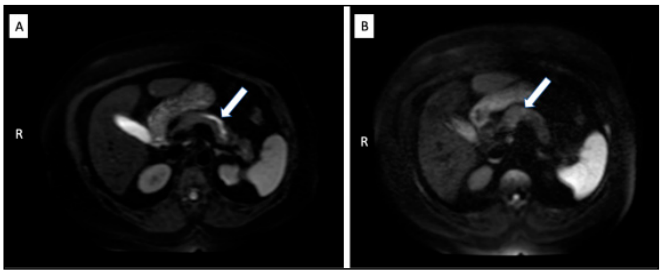
Case Presentation: A 69-year-old female admitted to our clinic due to thigh pain that lasts for one year. She had history of hypertension, hyperlipidemia and central diabetes insipidus (DI). She was diagnosed central DI 15 years ago with symptoms of polydipsia and polyuria, and she used desmopressin as a treatment. Complete blood count, electrolytes, liver function test, renal function tests, erythrocyte sedimentation rate and c-reactive protein levels were all in normal limits.

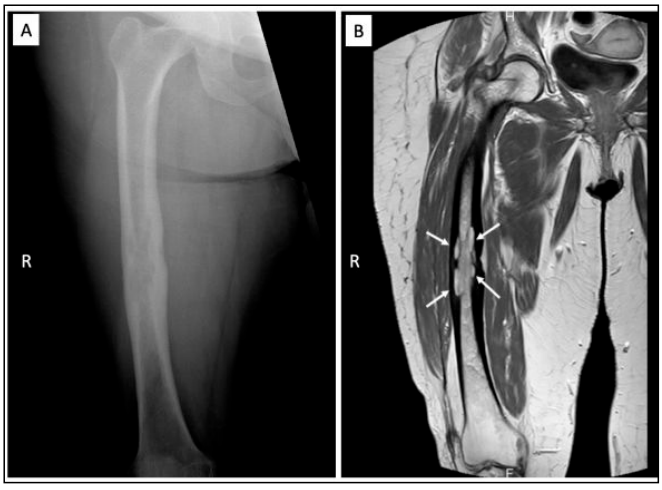
Magnetic resonance imaging (MRI) was performed to explain the cause of thigh pain. MRG showed periosteal reaction, endosteal tubular resorption and cortical thickening at the right femoral diaphysis (along approximately 9.5 centimeters) **(Figure-1)**. Bone biopsy was performed and histopathological examination revealed that clusters of histiocytes with positive staining for CD68 but negative for CD1a and S100. The patient was diagnosed ECD based on her clinical findings, imaging and biopsy results.

Brain MRI and thoracoabdominal computed tomography (CT) was performed to evaluate the involvement of other systems. Although there was no specific finding for ECD on brain MRI, thoracoabdominal CT showed a suspicious lesion which located at the corpus of pancreas and causing dilatation of pancreatic duct. The lesion was confirmed with abdominal MRI **(Figure-2)** and endoscopic ultrasonography. Ca 19-9 and carcinoembryonic antigen (CEA) levels were in normal range. However, the lesion was thought to be malignant and distal pancreatectomy, splenectomy and omentectomy was performed. The histopathology of the surgical specimen showed a low-grade NET which was 0.5 centimeters of diameter with intact surgical margins. Surgical therapy was considered curative and adequate for NET. Radiotherapy was applied to the thigh region and her pain was resolved by the radiotherapy.At the 6-month follow-up, the patient was asymptomatic and there was no evidence of NET recurrence in abdominal CT.

Discussion: Erdheim-Chester Disease is a rare non-Langerhans cell histiocytosis first described by William Chester and Jakob Erdheim, in 1930. In the literature, only a few cases have been reported regarding coexistence of lymphoproliferative diseases or polycythemia vera with ECD. Although ECD makes masses in different parts of the body, there is not well-known association between ECD and solid organ malignancies. Both ECD and pancreatic NET are rare diseases. To the best of our knowledge, this is the first case of ECD associated with pancreatic NET.

Keywords: Erdheim-Chester Disease; Pancreatic Neuroendocrine Tumor; BRAF mutation





PP-03

THE PROGNOSTIC EFFECT OF THE METASTASIS SITE IN COLORECTAL CANCER THAT TREATED WITH TARGETED THERAPY

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Introduction: Targeted therapies are used in colorectal cancer (CRC) as standard treatment regimes. Recently, new many prognostic factors, especially tumor localisation, were defined in metastatic colorectal cancer. We aim that investigated the prognostic importance of the metastatic sites in metastatic CRC treated with targeted therapies.

Material Methods: The metastatic colorectal cancer patients who treated with targeted agents between 2010 - 2018 in Ankara Yildirim Beyazit University were included in this study. The patient's data were retrospectively collected by using hospital electronic database and patient's records.

Results: Totally, 110 patients were included in this study. Most of the patients had an ECOG performance score <2. The 26 patients had lung metastasis and the median overall survival (OS) was 26 months and 40 months in the patients with and without lung metastasis, subsequently (p:0.003). The 74 patients had also liver metastasis and overall survival was 33 and 52 months in patients with and without liver metastasis subsequently (p: 0.24)

Discussion: The metastatic sites may be the worst prognostic factor independent of tumor localisation and treatment type in metastatic CRC

Keywords: metastasis, liver, lung, CRC

PP-04

A RARE METASTASIS CASE: BRAF V600 MUTATION POSITIVE GASTROINTESTINAL STROMAL TUMOR WITH BREAST METASTASIS

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Introduction and Aim: Gastrointestinal stromal tumors (GIST) are mesenchymal tumors and most of them are located in the stomach and small intestine. Although the most common metastasis sites are liver and peritoneum, atypical metastasis sites have been described in the literature. BRAF mutation has been reported in 3-13% in wildtype GIST. Here, we aimed to present a case of gastrointestinal system tumor with bilateral breast metastasis, in which we have been followed up with standard treatments for about 10 years and detected BRAF mutation positivity.

Case Report:A 38-year-old female patient was admitted to the emergency department with syncope. Her blood tests were normal except for low hemoglobin level (Hb: 6.5 g/dl) and no cardiac or neurological condition was considered in terms of syncope etiology. Esophagogastroduodenoscopy with endosonography was performed in terms of gastrointestinal bleeding etiology. In the second part of the duodenum, 46x40 mm homogeneous round mass lesion in the appearance of a sunken crater was seen. No pathological findings other than the mass in the duodenum was detected on abdominal imaging. Pylorus-sparing whipple and cholecystectomy surgery was performed with the pre-diagnosis of GIST. Pathology of surgical material was reported as GIST, 5 cm in size, originating from the duodenum, neoplastic cells strongly positive with CD117, CD34 and SMA, mitotic index was 15/50, Ki-67 proliferation index is around 20%. As adjuvant therapy, imatinib 400 mg/day was started. Imatinib was increased to 600 mg/day due to liver metastasis in the follow-up. Then, sunitinib was given as a second line treatment and regorafenib as a third line treatment. Due to progression findings, lymph node sampling was performed and BRAF mutation test was performed. The patient was started on dabrafenib 300 mg/day and trametinib 2 mg/day because the BRAF V600 mutation in the tumor tissue was positive. In the 3rd month of BRAF/MEK inhibitor therapy, disease progression was detected along with lesions consistent with metastasis in the bilateral breast tissue on thoracoabdominal imaging (Figure 1 and 2). Biopsy was performed due to the presence of BI-RADS 5 lesions on mammography. GIST metastasis confirmed with pathology report. We will make the treatment plan for the patient according to the NGS results studied from the tumor tissue.

Conclusion: Metastasis to regions other than the liver and peritoneum is rare in GIST. In the literature, cases of breast metastasis are very limited. This is the first GIST case showing the co-occurence of BRAF V600 mutation and breast metastasis.

Keywords: BRAF mutation, breast, gastrointestinal stromal tumor, metastasis

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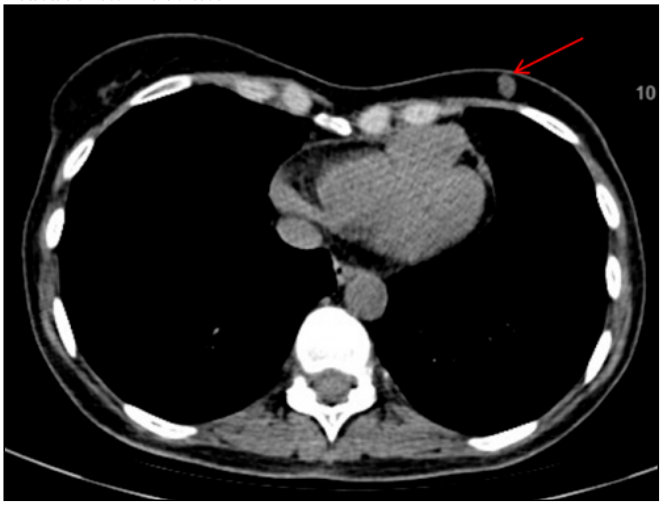
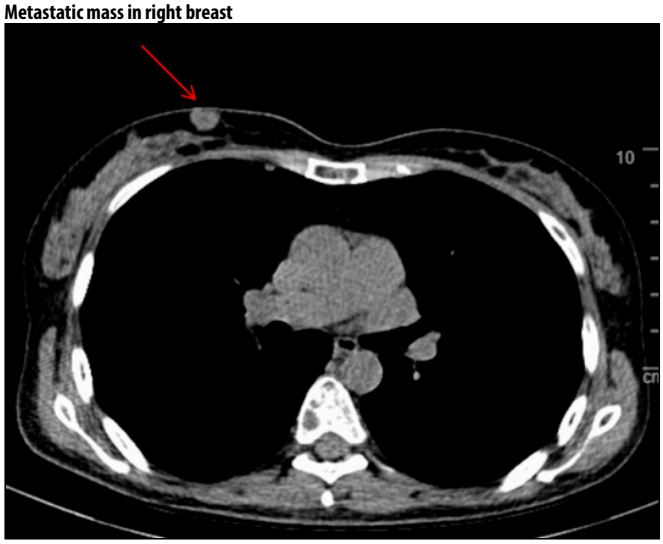
Metastatic mass in left breast



Metastatic mass in right breast



PP-05

A CASE REPORT OF SUDDEN HEARING LOSS IN A PATIENT WITH METASTATIC GASTRIC CANCER AFTER TREATMENT WITH THE RAMUCIRUMAB

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Background: Ramucirumab is a recombinant monoclonal antibody of the immunoglobulin G1 (IgG1) class that binds to vascular endothelial growth factor receptor -2 (VEGFR-2), blocking receptor activation. The trials (RAINBOW and REGARD) have shown a survival benefit for therapy with ramucirumab, either as monotherapy or in combination with paclitaxel in patients with previously treated, advanced gastric or esophagogastric junction (EGJ) adenocarcinoma. Although ramucirumab has side effects such as hypertension, bleeding, headache, and diarrhea, sudden hearing loss was not found in the literature. We reported that 71-year-old metastatic HER-2 positive gastric cancer who developed sudden hearing loss after paclitaxel and ramucirumab treatment.

Case Presentation: We report the case of a 71-year-old woman who developed a ramucirumab-related sudden sensorineural hearing loss while undergoing treatment for metastatic gastric cancer. She underwent systemic chemotherapy docetaxel, cisplatin and 5-fluorouracil (DCF) following endoscopic biopsy and diagnostic laparoscopy in February 2018. When HER-2 test was positive in the patient who progressed, cisplatin, 5-fluorouracil and trastuzumab treatment was started. In patient who progressed leucovorin calcium (calcium folinate), 5-fluorouracil, and irinotecan (FOLFİRİ) treatment was given as the third line chemotherapy. Ramucirumab in combination with paclitaxel was administered for one and half months after third-line chemotherapy failure in January 2020. She presented with tinnitus and hearing loss in the left ear 10 days after the last ramucirumab dose, and emergency intratympanic steroid injection was administered by the otolaryngology department. An audiometry showed permanent bilateral sensorineural hearing loss. There was no response to intratympanic steroid injection, so the hyperbaric oxygen therapy was applied to the patient. The chemotherapy was not reintroduced and she is still alive.

Conclusion: We present a case of ramucirumab-related sudden hearing loss in metastatic gastric cancer. This is the adverse reaction which occurred after postmarketing. When the literature was examined, it was found that this case was unique.

Keywords: Gastric Cancer, Ramucirumab, Sudden Hearing Loss

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PP-06

CHARACTERISTICS OF GASTRIC CANCER PATIENTS REFERRED TO OUR CLINIC

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Gastric cancer is the fifth most common type of cancer worldwide while it is the third most common cause of cancer related mortality. Despite its declining incidence, approximately 1 million new gastric cancer cases are made every year worldwide. The incidence is higher in Asia, European countries and South America. In our country, gastric cancer is 5th most commonly seen cancer in men and 6th in women. With this retrospective study, we aimed to evaluate the patients diagnosed with gastric cancer, who applied to our outpatient clinic, epidemiologically. Between 2010 and 2020, 347 patients diagnosed with gastric cancer were admitted to Acıbadem Maslak Hospital Medical Oncology outpatient clinic. One hundred and twenty-four of these patients continued their treatment and follow-up in our center. Seventy-eight (62.4%) of the patients were male and 46 (37.6%) were female. The median age at diagnosis was 57 years. The pathological evaluation was made according to the TNM staging system. Accordingly, 27 (33%) of the patients were found to be stage IV metastatic gastric cancer at the time of diagnosis, and 52 (41.9%) were stage III. Most commonly seen tumor localizations were antrum (33%), cardia (24%) and corpus (24%). Neoadjuvant chemotherapy was given to 31 patients. The most commonly used regimen as neoadjuvant therapy was DCF (docetaxel, cyclophosphamide, 5-fluouracil). Sixty-one of the cases (49.2%) had undergone total gastrectomy and 17 cases had partial gastrectomy. There were 57 (45.9%) patients who received adjuvant therapy. DCF protocol was also the most commonly used regimen in adjuvant therapy. Average follow-up period was calculated as 24 months.

The prognosis of the patients is poor since they are generally diagnosed at an advanced stage. Determining the treatment protocols after the evaluation of molecular properties will provide important developments in the future.

Keywords: gastric, epidemiology

PP-07

STEREOTACTIC RADIOTHERAPY FOR LIVER METASTASIS: A SINGLE INSTITUTION EXPERIENCE

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Aim: Stereotactic body radiation therapy (SBRT) is widely used for lung, liver and spinal tumors and the oncological result is very well (1-2). In this study, we aimed to evaluate the role of SBRT with liver metastasis and to interpret the clinical features of our patients.

Material and Methods: Treatment responses of two patients who underwent using 15Gray x 3 fractions SBRT for liver metastasis due to breast and rectal cancer at Osmangazi University Medical School in Department of Radiation Oncology are evaluated. Evaluation of treatment responses are evaluated by using the dynamic contrast-enhanced MRI of the liver.

Results: Case 1: After being diagnosed with rectal cancer in 2018, Low Anterior Resection was performed. Pathology resulted in moderately differentiated adenocarcinoma. In the follow-up, metastasis developed in the hepatic segment 4a and patient was treated with Radiofrequency Ablation (RFA).

In December 2019, in the abdomen computed tomography, new growth metastases extending from the liver segment 4a to segment 8 ,adjacent to the previous ablation zone, 37x30 mm in size was detected. In March 2020, 15 Gray x 3 fractions SBRT was delivered to liver metastases using the phase-based respiratory gating method. It was observed that the patient had a complete response in the dynamic contrast-enhanced MRI of the liver which was taken in the 4th month after SBRT, in June 2020 . SBRT-related toxicity such as hepatitis and increased liver function tests were not observed. The patient has been followed up 8 months after SBRT and no recurrence has been detected.

Case 2: A patient with invaziv ductal carcinoma who was followed up for breast cancer had a metastasis with a size of approximately 14x12 mm was detected in the liver parenchyma at the segment 6-7 junction on dynamic contrast-enhanced MRI of the liver. In November 2018, 15 Gray x 3 fractions SBRT was delivered to liver metastases. C omplete response was detected for this patient in the dynamic contrast-enhanced MRI of the liver metastases which was taken in the 5th month after SBRT, in April 2019. SBRT-related toxicity such as hepatitis and increased liver function tests were not observed. The patient has been followed up 24 months after SBRT and no recurrence has been detected.

Patient characteristics are given in Table-1.The images of the cases before and after the SBRT and isodose distribution for the SBRT are summarized in Figure-1 and Figure-2, respectively.

Conclusion: SBRT provides effective dosing with high precision in small fractions. Patients who undergo SBRT for liver metastasis are unsuitable for surgery and often RFA. It is reported that %90 of local control rate with limited toxicity in 2 years (3). SBRT plays an important role in the management of patients with unresectable liver metastasis caused by colorectal and breast cancer (4-5).

Keywords: Stereotactic body radiation therapy, liver metastases

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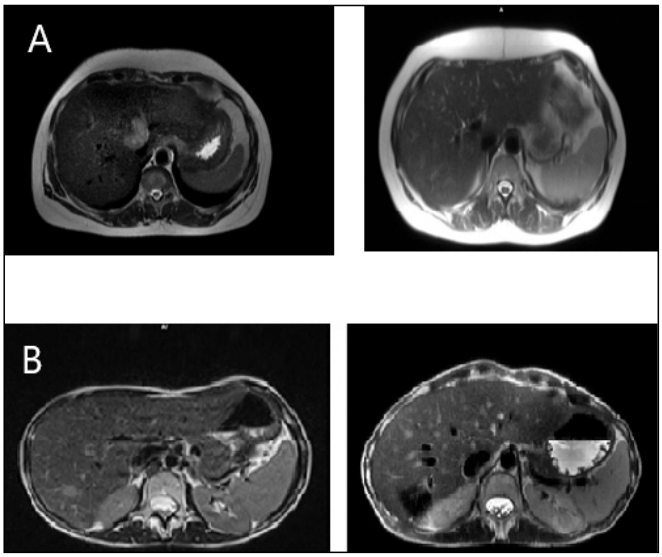

Figure 1. A: Case-1, before and after SBRT, B: Case-2, before and after SBRT

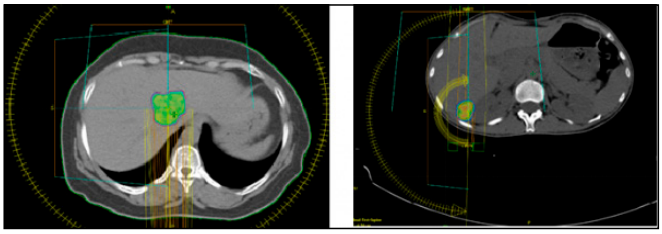

Figure-2: A: Case-1, isodose distribution , B: Case-2, isodose distribution

Table 1. Patient Characteristics

Features	*Case-1*	*Case-2*
Age	50	33
Gender	Women	Women
KPS	100	100
Histopathology	Moderately differentiated adenocarcinoma	Invasive ductal carcinoma
Primar tumor location	Rectum	Breast
Metastatic tumor size (mm)	35*30	14*12
SBRT doses	15 Gy x 3 fractions	15 Gy x 3 fractions

PP-08

POSSIBLE PARANEOPLASTIC GUILLAIN-BARRE SYNDROME IN GASTROINTESTINAL STROMAL TUMOR

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Paraneoplastic neurological syndrome (PNS) is a rare neurological disorder that is triggered by an abnormal immune system reaction that develops as a response to malignancies and it can involve all portions of the nervous system. The definition and diagnostic criteria for paraneoplastic nervous system disorders was proposed by the Paraneoplastic Neurological Syndrome Euronetwork in 2004 (1). They classified disorder two groups: classical and non-classical. Guillain-Barré syndrome (GBS) has been classified as "non-classical paraneoplastic disorder", in contrast to subacute sensory neuronopathy, encephalomyelitis, limbic encephalitis and subacute cerebellar degenaration included as part of the "classical paraneoplastic" disorders. They divided PNS into two groups those definite PNS and possible PNS according to clinical finding and onconeural antibodieas. If non-classical paraneoplastic disorder are detected and antibodies are negative and cancer present within two years of diagnosis, the diagnosis is possible PNS.There have been reports of GBS in different cancers, especially lung cancer(2,3,4,5). Here, we report a case of a 56-year-old man who was diagnosed with GBS in the setting of gastrointestinal stromal tumor. He have used imatinib, sunitinib and regorafenib, respectively. The patient was admitted to hospital with the complaint of weakness and numbness in the lower extremity.There is no story about previous infection, cough, fever, diarrhea, joint pain, headache or accompanying neurological complaints in the systemic interrogation of the patient.Craniospinal MRI was normal.EMG showed acute demyelinating sensorimotor polyneuropathy.After diagnosing Gullian-Barre syndrome, he was taken to plasmapheresis 5 times. After plasmapheresis, weakness and numbness complaints decreased. With the support of physical therapy, his complaints were greatly reduced and the patient was discharged.In our case, infectious causes, metastasis and radiation myelopathy were excluded. Regorafenib has rare neurogical side effects such as reversible posterior leukoencefalopathy syndrome, hyperammonemic encephalopathy, trasnvers myelopathy and sensory neuropathy (6.7). But we couldn't find a case report in the literature that it was associated with GBS.Paraneoplastic antibodies were negative but he has got uncontrolled cancer and it was evaluated as possible paraneoplastic GBS. Tje patient was treated succussfully with plasmapheresis.

Keywords: Paraneoplastic Polyneuropathy, Gastrointestinal Stromal Tumors

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PP-09

RETROSPECTIVE ANALYSIS OF DEMOGRAPHIC DATA AND CLINICAL PROPERTIES OF METASTATIC STOMACH CANCER PATIENTS

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Purpose: On this study; It was aimed to examine the demographic properties and clinical features of stomach cancer patients who was metastatic at time of diagnosis retrospectively.

Material and Method: In this study, the data of patients who were followed up with the diagnosis of stomach cancer in Inonu University Medical Faculty Medical Oncology Department between 01.01.2010-31.12.2019 were examined. Patients diagnosed with lymphoma, gastrointestinal stromal tumor and neuroendocrine tumor (NET) were excluded from the study. Totally 154 patients who were metastatic at the time of diagnosis and whose pathology preparations were available in our center were included in the study. Age, gender, first place of metastasis, histological type, tumor stage, lymphovascular and perineural invasion presence, number of invaded lymph nodes , pathological type, degree of differentiation, cerb B2 positivity, presence of brain metastasis, hemogram and biochemistry values at the time of diagnosis and the treatment methods applied were evaluated in 154 patients included in the study.

Results and Conclusion: Totally 74.7% (n = 115) of the patients were male and 25.3% (n = 39) were female. The median age of the patients was 68 (min: 18, max: 97). The median age of men and women was similar (67 vs 69 p = 0.688). The mean hemoglobin value was 11.6 g/dl, the average LDH value was 236.5 ıu/l, and the mean albumin value was 3.2 g/dl at time of diagnosis. The most common tumor location was at the proximal region (57.8%). The most common histological subtype was intestinal (59.5%). Totally 42.8% (n = 27) of the cases were grade 4, 36.6% (n = 23) of grade 3. Totally 42.5% of the cases were low, 23.4% were moderate, 23% were well differentiated. Cerb B2 receptor positivity was present in 4.3% of the cases. 95% of cases had lymphovascular and 88% had perineural invasion. The first place of metastasis is liver in 63.6% of cases, peritoneum in 24.7%, lung in 5.8%, ovaries in 2.6%, bone in 1.9%, diaphragm in 1.3% of cases. The median survival time for all cases was calculated as 8 months and median follow-up time was 8.1 months. With low serum albumin level (<3.5 mg / dl), high serum LDH level (> 250 ıu/l) and anemia (Hb <10 mg / dl), overall survival (OS) decreases statistically significantly, p values are 0.01, 0.01, respectively. In addition, progression-free survival (PFS) decreases statistically significantly with low albumin level (<3.5 mg/dl) and high serum LDH level (> 250 µl/l), p values are 0.05 and 0.03, respectively. There was no significant difference with anemia (p=0.06).

Keywords: Metastatic gastric cancer, demographic data, Cerb B2

PP-10

THYROID METASTASIS FROM RECTAL ADENOCARCINOMA: A CASE REPORT

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İntroduction: The thyroid is a rare site for metastasis, occurring in 0.1% of colorectal cases[1]. These metastases are often discovered incidentally in the imaging taken during the follow-up of the primary tumor.

Case Presentation: We report a case of rectum adenocarcinoma metastasis to the thyroid gland with treatment of lung metastasis. A 60-year-old woman underwent lobectomy due to lung metastasis that developed four years after low anterior resection. Six years later she presented with neck swelling and dyspnea. Additionally, an increasing CEA with normal CA19.9 was determined. Neck ultrasonography revealed a mass in the thyroid and cervical lymphadenopathy. Fine-needle aspiration cytology of the thyroid mass suggested adenocarcinoma metastasis. Tracheostomy was performed on the patient who was not suitable for thyroidectomy. Therefore, radiotherapy was applied to the mass in the thyroid. Because of DPD enzyme deficiency, FOLFOX and Bevacizumab treatment was given to the patient by reducing the dose. But she developed an oxaliplatin allergy. Because of allergy and progression after first line chemotherapy, FOLFIRI and bevacizumab chemotherapy treatment was started as second line therapy.

Discussin: Thyroid gland metastasis is extremely rare in solid organ cancers. The lung, renal cell carcinoma, breast and gastrointestinal tumour are the most common primary tumors metastatic to the thyroid[2]. Thyroid gland metastasis of colorectal cancer is rare, but detection is extremely important due to high survival rates of patients.

Conclusion: Metastasis should be considered in patients with thyroid nodules and a history of cancer.

Keywords: rectum cancer, thyroid, metastasis

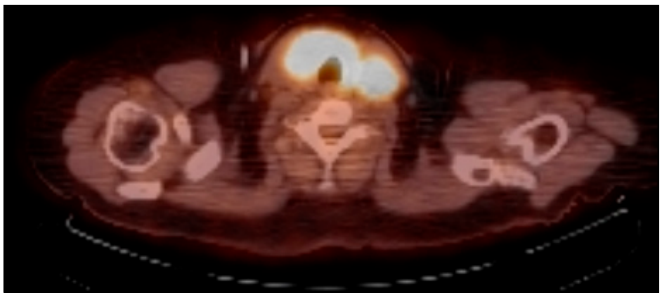

Figure 1. FDG-PET CT: Pathological FDG uptake in the thyroid gland mass and metastatic lymph nodes.

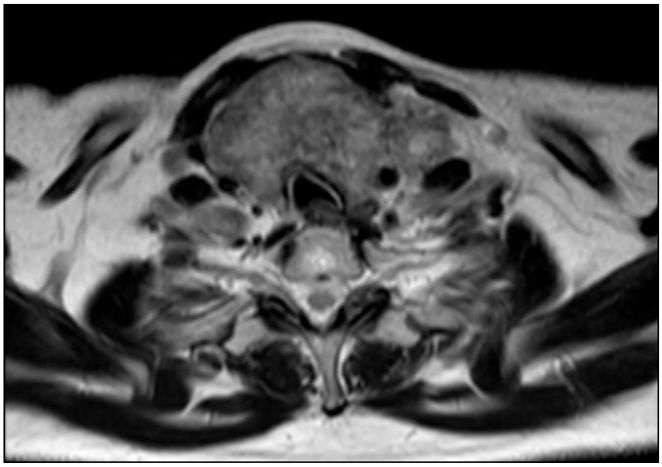

Figure 2. Neck MR: Heterogen and Low-density mass is spread in the thyroid and metastatic lymph node.

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