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Dear Colleagues,

It is my great pleasure to invite you to attend the 11th International Gastrointestinal Cancers Conference (IGICC 2021) being held between 2 and 5 December 2021. This international gastrointestinal scientific event is endorsed by international society such as UICC.

Our conference includes 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 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 also creates opportunities for participants to present and share experiences, explore new directions and debate topics with international experts.

Considering the success of the first ten conferences, 11th IGICC is 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 welcome you for this meeting by attending and submitting your scientific work as an abstract to be considered for presentation in IGICC 2021.

We are looking forward to meeting you for Istanbul IGICC 2021.

Prof. Suayib Yalcin
Conference President

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Oral Presentations

OP-01

PROGNOSTIC ROLE OF PRE-OPERATIVE SERUM FERRITIN LEVEL IN STAGE 2 COLON CANCER

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Objective: In this study we aimed to evaluate the prognostic value of preoperative serum ferritin level in patients with stage 2 colon cancer undergoing curative surgery.

Methods: The data of 120 patients who were stage 2 after curative surgery and whose ferritin levels were measured before any treatment was started at the time of diagnosis were analyzed. Demographic data such as age and gender, histopathological characteristics such as tumor size, lymphovascular invasion (LVI), perineural invasion (PNI), number of removed lymph nodes, tumor grade, and clinical and laboratory data were retrieved from the medical charts or electronic medical records of the hospital. The prognostic cut-off level of ferritin for survival was accepted as 150 ng/ml which is the upper limit defined by the world health organization (WHO).

Results: 50 (41.7%) of the patients were female and 70 (58.3%) were male, with a median age of 63.5 (range 24-90) years. No significant difference was found between the ferritin groups in terms of age, gender, T stage, tumor localization, histological subtype, PNI, LVI, removal of less than 12 lymph nodes, and tumor size. Patients with a high ferritin level were found to have poorer disease free survival and overall survival than those with low ferritin level, although the difference did not reach statistical significance.

Conclusion: Serum ferritin is an easily-monitored, cost-effective, and reproducible marker. We found that a high high ferritin level was associated with poor survival, although not statistically significant.

Keywords: colon cancer, ferritin, prognosis

Table 1. Comparison of clinical features and baseline characteristics according to serum ferritin group in stage-2 colon cancer

	Ferritin(ng/ml)		P value
	Low SF (n=98)	High SF (n=22)	
Age, years			
≥65	41 (41.8)	12 (54.5)	0.278
<65	57 (58.2)	10 (45.5)	
T stage n (%)			
T3	76 (77.6)	15 (68.2)	0.354
T4	22 (22.4)	7 (31.8)	
Gender, n (%)			
Male	56 (57.1)	14 (63.6)	0.577
Female	42 (42.9)	8 (36.4)	
Tumorlocation, n (%)			
Right colon	36 (36.7)	9 (40.9)	0.715
Leftcolon	62 (63.3)	13 (59.1)	
BMI, kg/m² n (%)			
≥25	34 (63)	7 (50)	0.377
<25	20 (37)	7 (50)	
Tumorgrade, n (%)			
Grade 1	17 (20)	4 (20)	
Grade 2	62 (72.9)	16 (80)	0.468
Grade 3	6 (7.1)	-	
Chemotherapy, n (%)			
Yes	58 (59.2)	13 (59.1)	0.994
No	40 (40.8)	9 (40.8)	
Tumor size, n (%)			
<4 cm	18 (18.4)	5 (22.7)	0.639
≥4 cm	80 (81.6)	17 (77.3)	
Removed lymph node, n (%)			
≥12	77 (79.4)	18 (81.8)	0.797
<12	20 (20.6)	4 (18.2)	
LVI, n (%)			
Absent	64 (68.8)	16 (72.7)	0.720
Present	29 (31.2)	6 (27.3)	
PNI, n (%)			
Absent	77 (81.1)	20 (90.9)	0.524
Present	17 (17.9)	2 (9.1)	

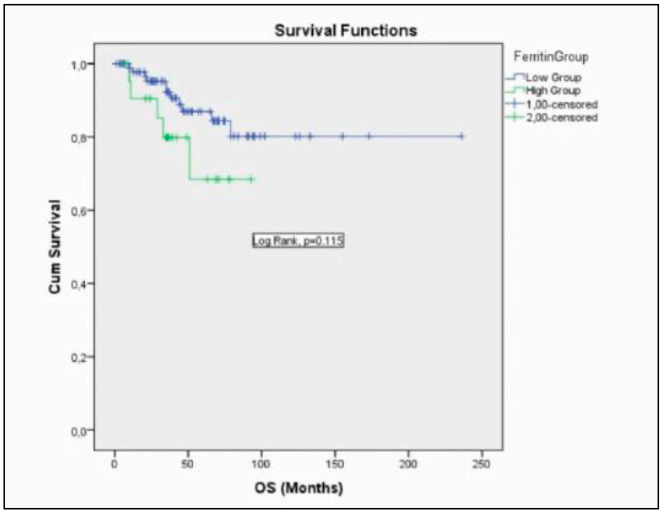

Figure 1. Kaplan-Meier curve of OS for groups by serum ferritin level. 5-year survival rates were 69% in the high ferritin group and 84% in the low ferritin group

OP-02

PREDICTION OF ACUTE HEMATOLOGIC TOXICITY ASSOCIATED WITH RADIOTHERAPY IN RECTUM CANCER WITH ARTIFICIAL INTELLIGENCE

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Objective: It is aimed to predict acute hematological toxicity (HT) with artificial intelligence in cases diagnosed with locally advanced rectal cancer who received neoadjuvant radiotherapy (RT) ± concurrent chemotherapy (CT).

Materials-Methods: 107 cases who underwent RT ± CT by Eskişehir Osmangazi University Faculty of Medicine Radiation Oncology Department between 2014-2021 were evaluated. SMOTE (Synthetic Minority Oversampling Technique) method was used to create a balanced data set. Variables are, age, gender, KPS, chronic disease history, radiological Tumor (T), Lymph Node (N) and TNM stage, metastatic lymph node region, tumor location according to distance (cm), tumor location (upper / middle / lower), Cea values befaore and after RT, hemoglobin / neutrophil / lymphocyte and platelet values before RT, RT dose, RT technique, RT interrupted time, presence of concurrent KT and scheme, pelvic bones maximum, minimum, median and V5-10-15-20-25-30-35-40-45 (cc. and % values), sacrum bone maximum, minimum, median and V5-10-15- 20-25-30-35-40-45 (cc. and % values), femur maximum, minimum, median and V5-10-15-20-25-30-35-40-45 (cc. and % values), lumbar vertebra maximum, minimum, median and V5-10-15-20-25-30-35-40-45 (cc. and % values). After the correlation analysis, the permutation-based variable selection method was used. Logistic Regression (LR), multilayer perceptron Classifier (MLP), Extreme Gradient Boosting (XGB), Support Vector Classifier (SVC), Random Forest Classifier (RFC) and Gaussian Naive Bayes (GNB) algorithms are used. Datasets are divided into 80% training and 20% test sets. Models were created using the training set and validated using the test set.

Results: The median age is 63 (23-85). Patient and tumor characteristics are given in Table-1. The median RT dose is 50.4 (45-54) Gy. Treatment characteristics are summarized in Table-2. Severe acute HT (>= grade 3) was seen in 78 cases. Important variables; sex, BMI, KPS, tumor location according to distance, pelvic bones Dmax, pelvic bones and femur V5 (%), lumbar vertebra V45 (% and cc) hemoglobin, lymphocyte and platelet value before RT, radiological T and N stage. The XGB Classifier algorithm was determined as the best estimating algorithm with 90% accuracy (Confidence Interval, CI:0.72, 1.00), 93% sensitive and 83% specificity. Confusion matrix of XGB Classifier algorithm is given in Figure-1. The ROC AUC score of the algorithm is 89%, and the ROC AUC score of the algorithms is given in Figure-2.

Conclusion: It is important to predict patients who will develop acute HT in order to minimize the side effects of treatment. If these cases can be detected in advance with artificial intelligence algorithms, necessary precautions can be taken to reduce toxicity rates, hospitalizations and unnecessary health expenditures.

Keywords: Rectal cancer, radiotherapy, Artificial Intelligence

		Actual (Number of patients)	
		AHT (-)	AHT (+)
Predicted (Number of patients)	AHT (-)	15	1
	AHT (+)	1	5

AHT: Acute haematological toxicity
Figure 2. ROC-AUC graph of algorithms

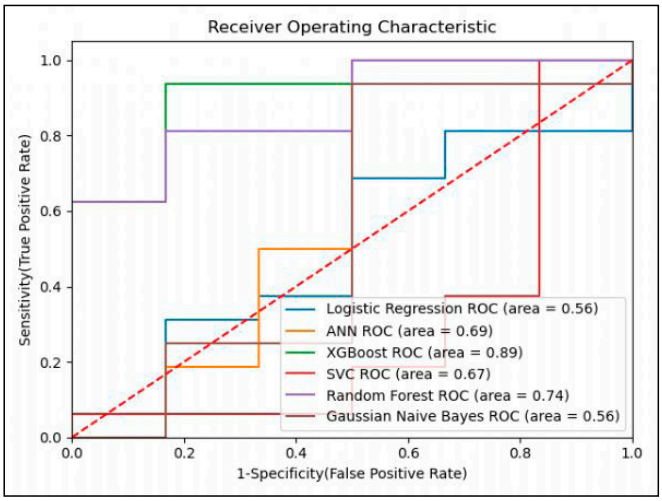

Figure 1. XGB Classifier algorithm,Confusion matrix

Table 1. Patient and Tumor Characteristics

Characteristics	*N (%) / Median (Minimum-Maximum)*
Age	63(85-23)
Gender: Female/Male	36(%33.64)/71(%66.36)
Radiological T Stage: T2/T3/T4	5(%4.67)/88(%82.24)/14(%13.09)
Radiological N Stage:N0/N1/N2	53(%49.53)/41(%38.31)/13(%12.16)
Radiological TNM Stage: I/II/III/IV	1(%0.94)/52(%48.59)/51(%47.66)/3(%2.81)
Tumor Localization:Upper/Middle/Lower	18(%16.82)/36(%33.64)/53(%49.54)
CEA value before treatment (ng/mL)	3.95(313-0.84)
CEA value after treatment (ng/mL)	2.48(67.03-0.49)

CEA: Carcinoembryonic Antigen

Table 2. Treatment Characteristics

Characteristics	*N (%) / Median (Minimum-Maximum)*
RT dose (Gy)	50.4(54-45)
RT technique: 3D- CRT/VMAT	48(%44.85)/59(%55.15)
Concurrent Chemotherapy:Yes/No	92(%85.99)/15(%14.01)
Concurrent Chemotherapy Schema: Capecitabine/5-Fu/No	89(%83.17)/3(%2.80)/15(%14.03)
Pelvic Bone:V5(cc/%)-V10-V15-V20-V25-V30-V35-V40-V45-Minimum-Median-Maximum	675(1083-387)/89(99-65)--619(1014-68)/84(94-57)--603(977-317)/76(99-49)--508(931-266)/66(84-38)--377(716-99)/49(80-13)--236(522-14)/31(58-1.80)--132(411-0.20)/18(53-0)--63(379-0)/8.40(47-0)--21(285-0)/2.20(38-0)--1.26(3.20-0.11)--23.82(33.54-9.86)--49.48(55.70-18.51)
Sacrum: V5(cc/%)-V10-V15-V20-V25-V30-V35-V40-V45-Minimum-Median-Maximum	268(414-116)/100(100-54)--257(413-76)/100(100-36)--249(412-58)/97.70(100-27)--232(411-45)/89(100-21)--215(403-30)/79(100-14)--177(386-16)/67(100-7.40)--127(375-5.10)/49(98-2.40)--82(337-0.90)/30(96-0.30)--31(216-0)/11(64-0)--7.70(30.66-0.44)--33.80(44.60-10.93)--51.30(56.40-18.37)
Femur: V5(cc/%)-V10-V15-V20-V25-V30-V35-V40-V45-Minimum-Median-Maximum	293(533-49)/77(100-18)--247(496-45)/70(100-10)--176(447-14)/47(100-3.30)--94(395-0.90)/25(100-0.20)--39(261-0)/9(88-0)--9.20(146-0)/2.80(61-0)--0.80(118-0)/0(30-0)--0(94-0)/0(24-0)--0(50-0)/0(13-0)--0.60(21.95-0)--13.70(31.20-3)--38.60(51.20-17.72)
Lumbar vertebra:V5(cc/%)-V10-V15-V20-V25-V30-V35-V40-V45-Minimum-Median-Maximum	47(204-0)/29(100-0)--10(148-0)/16.52(99-0)--2.60(130-0)/1.80(97-0)--0.30(115-0)/0.30(94-0)--0(92-0)/0(84-0)--0(65-0)/0(42-0)--0(48-0)/0(33-0)--0(33-0)/0(23-0)--0(6-0)/0(12-0)--1.20(5.19-0)--4.60(42.98-0.37)--25.50(50-0.80)

V5 (cc and %)= Volume (cc) and percentage of bone that received 5 Gy radiation dose, RT= radiotherapy, 3D- CRT= three-dimensional conformal radiation therapy, VMAT=Volumetrik Mo- dulated Arc Therapy, 5-FU= 5-Fluorouracil

OP-03

THE EFFECT OF RAS/BRAF MUTATIONAL STATUS ON PROGNOSIS AND RECURRENCE PATTERN IN EARLY STAGE COLON CANCERS

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Background: It is known that RAS, and BRAF mutational status are predictive for using targeted therapies in combination with chemotherapy for treatment of end-stage colon cancer and have negative effect on the disease prognosis. However, there are limited studies evaluating effect of mutational status on treatment preference for early stage colon cancer in addition to the classical risk factors (T4 tumor, MSI status, obstruction, perforation, etc) and on clinical pattern at the time of relapse. In the study, we aimed to determine the relationship between the mutational status and, survival and, the recurrence pattern in early stage colon cancer.

Method: Patients who were early stage colon cancer at the time of initial diagnosis and recurred during follow-up were included the study. Patients were divided into two groups as RAS or BRAF mutation positive or negative. If possible re-mutation analysis was performed from the early stage tissue of patients with positive mutations at the time of recurrence. The relationship between the mutation status and, disease free survival/overall survival and, clinical recurrens pattern were analysed.

Results: A total of 79 patients were included in the study in two groups, 43% (n=34) of the patients were female and 57% of (n=45) were male. The mean age of the patients was 58.9 ± 11.6 years. The number of patients with mutation positive and negative at the time of initial diagnosis were 20 and 35, respectively. The majority of patients for both of group had in stage 3 (80% 16 patients, 74.3% 26 patients; respectively). The median overall survival was determined as 69.9 (38.7-101.1) and 75.4 (57.3-93.5) months, respectively. Overall survival was no significant different between the two groups (p=0.65). The median disease-free survival of mutant patients was 11.2 (7.5-18.1) months and wild patients was18.79 (12.89-24.69) months. There was also no significant difference in disease-free survival between the groups (p=0.062). The both groups had been majority recurred as distant metastasis (90% vs 62.8%). There was no significant difference local (p=0.067) or distant metastasis (p=0.069) recurrence pattern of between mutation positive and negative patients.

Conclusion: Our study showed that mutation status in early stage colon cancer have no effect on overall survival, disease-free survival and clinical relapse pattern. The major limitation of the study is small number of patients. There is a need more well-attended studies to reach more precise results.

Keywords: Ras, Braf mutation

OP-04

THE RELATIONSHIP BETWEEN THE THROMBOCYTE/LYMPHOCYTE RATIO, THE NEUTROPHIL/LYMPHOCYTE RATIO AND THE PROGNOSIS OF PATIENTS WITH GASTRIC CANCER RECEIVING PERIOPERATIVE CHEMOTHERAPHY

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Objective: Gastric cancer is a disease with high morbidity and mortality. Despite the developments of cancer treatments, it still continues to have a poor prognosis. There is no marker that predicts prognosis and used in clinical follow-up. Platelets promote the tumor development while lymphocytes are members of the immune system. The peripheral blood platelets-lymphocyte ratio (PLR) is useful as an inflammation/immune indicator to predict the postoperative recurrence and prognosis of various malignancies. Peripheral blood neutrophil-to-lymphocyte ratio (NLR) has also been reported as a useful indicator of inflammation/immunity. In this study, we aimed to analyze the relationship between PLR, NLR and prognosis in gastric cancer patients receiving perioperative chemotherapy.

Method: The patients were selected among patients with gastric adenocarcinoma who were followed up in Medical Oncology Clinic of Kocaeli University Hospital between January 2015 and January 2020. Patients who received perioperative chemotherapy were included in the study. The values of NLR and PLR were calculated based on the pre-chemotherapy hemogram values of the patients.

Results: One hundred and fifty patients were included in the study, 69% (n:103) of them were male. During the follow-up peri-

od, 76 (50.7%) patients died. The median value for NLR was 2.32 (1.53-3.52) among the survivors, and 2.69 (2.17-4.46) among those who died. There was statistically significant difference (p=0.01). The median value for PLR was 153.43 (116.69-226.69) among the survivors, and 156.59 (122.15-245.27) among those who died. PLR had no significant effect on mortality (p=0.49). There were 63 (%42) patients whose disease progressed during follow-up. The median value for NLR was 2.43 (1.50-3.80) for patients without recurrence, and 2.67 (2.17-4.52) for patients with relapse. NLR was significantly higher in patients who had recurrent disease (p=0.03). The effect of PLR on relapse was not statistically significant (p=0.45). NLR and PLR were found to have a significant effect on overall survival (OS) (p=0.003 and p=0.04, respectively).

Conclusion: NLR and PLR rates are inexpensive and easily accessible markers that predict the prognosis of patients with gastrit cancer receiving perioperative chemotheraphy.

Keywords: Gastric Cancer, Neutrophil to lymphocyte ratio, Platelet lymphocyte ratio

OP-05

COMPARISON OF EFFICACY AND SAFETY OF 5-FU OR CAPECITABINE, COMBINED WITH CISPLATIN AND DOCETAXEL (MDCF AND MDCX) AS FIRST-LINE CHEMOTHERAPY FOR METASTATIC GASTRIC CANCER PATIENTS: A REAL-LIFE STUDY

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Objectives: Metastatic gastric cancer (mGC) has a poor prognosis, and the median survival time is usually shorter than one year. A small number of studies have compared combination regimens for first-line treatment. In this retrospective study, we aimed to compare the efficacy and safety of modified DCF (mDCF) (docetaxel, cisplatin, 5-FU) and modified DCX (mDCX) (docetaxel, cisplatin, capecitabine) regimens in patients with mGC for first-line treatment.

Methods: mGC patients who were treated with either mDCF (n = 54) or mDCX (n = 40) between January 01, 2015, and March 01, 2020, were included in the study. Demographic findings, response rate, mortality rate, overall survival (OS) and progression-free survival (PFS), and adverse events were evaluated.

Results: A total of 94 patients were included in the study. In the mDCF group, the complete response rate was 9.3%, whereas, in the mDCX group, complete response was not observed. The partial response rate was 33% and 32% for mDCF and mDCX, respectively There was no significant difference between the two regimens in OS and PFS. The median OS was 10 months (95% CI: 6.5-20.4) in the mDCF arm and 8.3 months (95% CI: 4.6-14.4) in the mDCX arm (p=0.114). The median progression-free survival (PFS) was 5.2 months (95% CI: 3.6-6.9) in the mDCF arm and 4.8 months (3.2-6.6) in the mDCX arm (p=0.516). The ratio of dose reduction, treatment delay, and neutropenic fever were not statistically different between treatment arms.

Conclusions: mDCX and mDCF regimens have similar efficacy and a tolerability profile for first-line treatment of mGC.

Keywords: metastatic, gastric cancer, chemotherapy

OP-06

LONG-TERM SURVIVAL DATA IN GASTRIC CANCER ACCORDING TO STAGE IN TURKEY

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Introduction: Gastric cancer (GC) is the second leading cause of cancer-related mortality and the fourth most common cancer globally. According to Turkey Healty Mininter data, gastric cancer is the fifth common cancer in man and the sixth in women in Turkey. We aim to documented gastric cancer surival before age of next generation sequencing and targeted therapy also immunotherapy n Turkey.

Methods: Four hundred fifty one patients diagnosed with GC admitted to Dr. A.Y. Oncology Training and Research Hospital between 2010 and 2013 included in this study. Stage, diagnosis date and survival status of patients(dead o alive) were analysed using patient medical records retrospectively.

Results: We analyzed 451 patients (148 females (%32,8) and (303 males (%67,2). Median age was 59 years (range 22-81). We compared pateints survival between stage. At the time of analiz 99 (22%) of 451 patients were alive. Totally 1,5,10 years cumulatif survival was 45%, 25% and 21%. Survival data according stage was summariazed in Table 1. When the survival rates of the cases according to the stages were evaluated with the log rank test, The difference between the survival rates were statistically significant ($p<0.05$). The survival rates of Stage 1 patients were significantly higher than stage 2, stage 3 and stage 4 ($p<0.0001$). The survival rates of stage 2 patients were significantly higher than stage 3 and stage 4 ($p<0.0001$). The survival rates of stage 3 patients were significantly higher than those with stage 4 ($p<0.005$). Median survival was 9.4 month for stage 4 and 24.6 month for stage 3.

Conclusion: GC is one of the important mortality reason of cancer mortality. Mortality is high even in the early stage. Stage is the most important prognostic factor. Current survival data are unsatisfactory in gastric cancer. Immunotherapy and targeted therapies are also promising in gastric cancer.

Keywords: gastric cancer, surival, stage

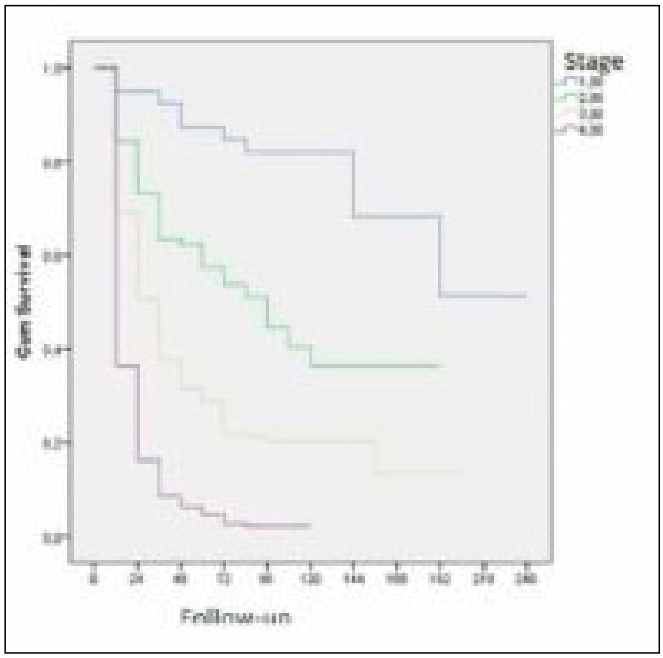

Figure 1. Kaplan-Meiser of Overall Survival

Table 1. Stage distribution and mortality

Stage	N	Exitus N/%	1 year OS (%)	5 year OS (%)	10 years OS (%)
I	39	9/23	95	85	82
II	82	47/57	73	54	36
III	146	117/80	64	41	34
IV	184	179/97	16	3	-

OP-07

EVALUATION OF THE IMPACT OF PREOPERATIVE SARCOPENIA ON TREATMENT RESULTS AND SURVIVAL IN PATIENTS WITH PANCREATIC CANCER

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Introduction: Pancreatic ductal adenocarcinoma (PDAC) is the 7th most common cause of cancer-related death worldwide. Although the prognosis of the disease is determined according to tumor-related causes; some studies show that patient-related factors may also be important in determining the prognosis. There are data indicating that sarcopenia may has a prognostic significance in pancreatic cancer. In this study, we aimed to evaluate the impact of preoperative sarcopenia on treatment outcomes and survival in patients with pancreatic cancer.

Methods: Patients who underwent surgery with the diagnosis of PDAC in Hacettepe University Hospital General Surgery Clinic between June 2006 and August 2020 were included. The clinical and pathological characteristics of the patients, as well as their postoperative mortality and morbidity, neoadjuvant/adjuvant treatment status, recurrence and last control/death dates were recorded. The sarcopenia status of the patients were evaluated on the contrast-enhanced abdominal computed tomography (CT) scans performed in the preoperative period. Skeletal muscle index (SMI) was calculated by measuring the volume of skeletal muscle at the level of the lumbar 3 (L3) vertebrae. L3-SMI < 45.4 cm2/m2 for male and < 34.4 cm2/m2 for female are used for sarcopenia. Chi-square, student t test and Mann-Whitney U test were used in univariate analyses. Kaplan Meier analysis was used for survival analysis.

Results: One hundred forty-six patients were included in the study and 90 (61.6%) were male and 56 (38.4%) female. The mean age of the patients was 63.0±11.2 years. Thirty-five (24.0%) of the patients were evaluated as sarcopenic. In univariate analyzes, statistically significant difference ($p< 0.05$) was found between sarcopenic and non-sarcopenic patient groups in terms of gender, presence of obstruction, preoperative hemoglobin level, systemic immune-inflammation index, platelet lymphocyte ratio. There was no statistically significant difference between the postoperative complications, hospitalization times and short-term mortality of sarcopenic and non-sarcopenic patients. In the analysis of relapse-free survival according to sarcopenia status, the median time to relapse or death in sarcopenic patients was 10.5 months (95% CI; 8.2 - 12.8) and 12.3 months (95% CI; 9.5 - 15.0) in non-sarcopenic patients, which was statistically significant ($p=0.011$). In the overall survival analysis, the median overall survival of sarcopenic patients was 15.6 months (95% CI; 10.1 - 21.1) and 23.6 months (95% CI; 18.7 - 23.5) in non-sarcopenic patients, which was also statistically significant ($p<0.001$).

Conclusion: Pancreatic cancer patients with preoperative sarcopenia had worse relapse-free survival and overall survival compared to non-sarcopenic patients. Researches with larger number of patients are needed to evaluate the level of postoperative complication development.

Keywords: pancreatic cancer, preoperative sarcopenia, survival

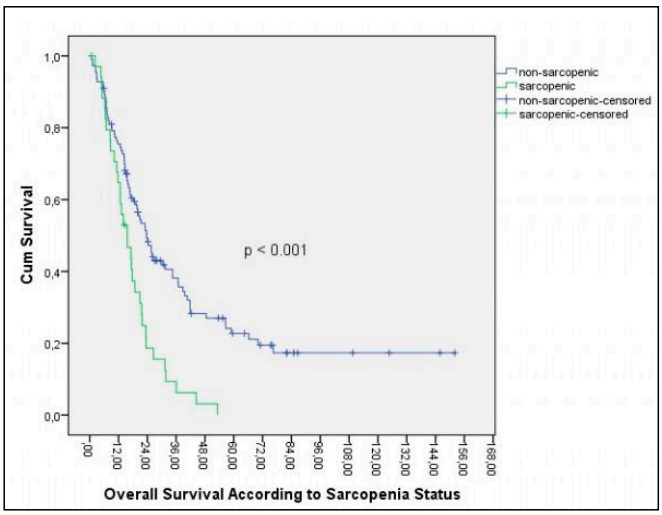
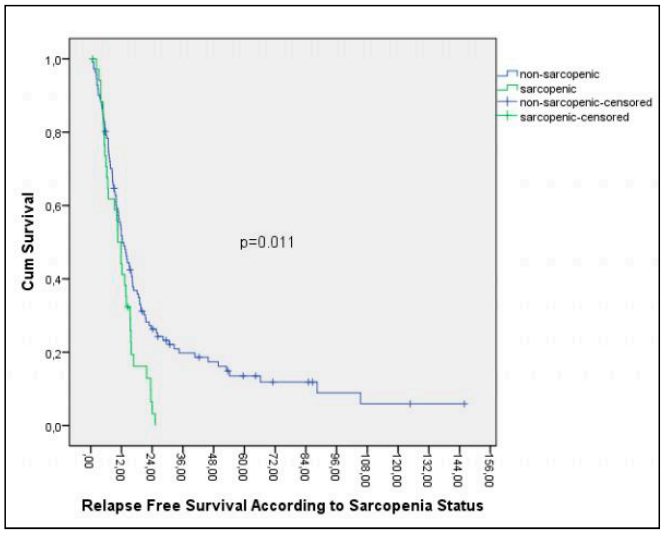


Figure 1. Overall Survivall According to Sarcopenia Status



Figre 2. Relaps Free Survival According to Sarcopenia Status

Patient Characteristics Related to Sarcopenia Status

Parameters	*Total (n=146)*	*Non-sarcopenic (n=111)*	*Sarcopenic (n=35)*	*p value*
Age, years (mean, SD)	63.0±11.2	63.3±11.0	62.0±11.9	0.565
Sex, male female	90 (61.6%) 56 (%38.4)	60 (41.1%) 51 (%34.9)	30 (%20.5) 5 (%3.4)	0.001
65 years >= <	76 (%52.1) 70 (%47.9)	58 (%39.7) 53 (% 36.3)	18 (%12.3) 17 (%11.6)	0.932
Weight Loss Status Present Absent Unknown	 72 (49.3%) 35 (24%) 39 (26.7%)	 51 (34.9%) 29 (19.9%) 31 (21.2%)	 21 (14.4%) 6 (4.1%) 8 (5.5%)	0.330
Obstruction Status Present Absent	 96 (65.8%) 50 (34.2%)	 67 (45.9%) 44 (30.1%)	 29 (19.9%) 6 (4.1%)	0.014
Resectability Resectable Borderline or Unresectable	 103 (70.5%) 43 (29.5%)	 76 (52.1%) 35 (24.0%)	 27 (18.5%) 8 (5.5%)	0.326
Residual Tumor Status R0 resection R1 or R2 resection	 102 (69.9%) 44 (30.1%)	 81 (55.5%) 30 (20.5%)	 21 (14.4%) 14 (9.6%)	0.145
Pathologic T stage pT1 or T2 pT3 or pT4	 92 (63.0%) 54 (37.0%)	 69 (47.3%) 42 (28.8%)	 23 (15.8%) 12 (8.2%)	0.704
Pathologic N stage N0 N1 N2	 59 (40.4%) 56 (38.4%) 31 (21.2%)	 45 (30.8%) 42 (28.8%) 24 (16.4%)	 14 (9.6%) 14 (9.6%) 7 (4.8%)	0.967
Stage I or II III or IV	 94 (64.4%) 52 (35.6%)	 71 (48.6%) 40 (27.4%)	 23 (15.8%) 12 (8.2%)	0.850
Relapse Status Present Absent	 127 (87.0%) 19 (13.0%)	 94 (64.4%) 17 (11.65)	 33 (22.6%) 2 (1.4%)	0.247
Preoperative Hemoglobin Level (mean, SD)	12.5±1.63	12.7 ±1.55	11.95±1.77	0.015
systemic immune-inflammation index (median, min- max)	590 (76.19- 4499	566.45 (99 - 2419	788 (76.19 – 4499.09	0.046
Platelet lymphocyte ratio (median, min-max)		126.59 (41.20 – 426.25	167.77 (33.13 -642.73)	0.007

OP-08

PROGNOSTIC SIGNIFICANCE OF ADIPOSE TISSUE DISTRIBUTION AND METABOLIC ACTIVITY IN PET / CT IN PATIENTS WITH METASTATIC COLORECTAL CANCER

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Purpose: In this study, we aimed to evaluate prognostic significance of adipose tissue distribution and metabolic activity in PET/CT to predict survival in patients with metastatic colorectal cancer (mCRC).

Materials-Methods: Eighty three patients diagnosed with mCRC between 2010 and 2018 were included in the study. The volume, density (HU) and FDG uptake (standardized uptake value-[SUV]) of visceral adipose tissue (VAT) and subcutaneous adipose tissue (SAT) and maximum FDG uptake of the tumor tissue were measured. Subcutaneous adipose tissue of volume-to-density ratio (SAT ratio) was calculated.

Results: The median overall survival (OS) was 33.76 months (95% CI: 28.18-39.34). According to univariate analysis results, tumor location (HR:2.5; 95% CI 1.27-4.98, p=0.008) and SAT ratio (HR:0.5; 95% CI 0.34-1.00, p=0.053) were the significant parameters for the OS. The median OS for the patients with SAT ratio value <-1.1 and >= -1.1 were 38.5 (95% CI 31.54-45.58) and 24.5 (95% CI 14.13-34.93) months, respectively (p=0.05). During follow up, 69 patients experienced disease progression. The median progression-free survival (PFS) was 11.03 months (95% CI: 9.11-12.95). Comorbidity (HR:0.48; 95% CI 0.29-0.78, p=0.003) and tumor SUV max (HR:0.95; 95% CI 0.92-0.99, p=0.014) were the significant parameters for the PFS. Median PFS for patients with tumor SUV max value <11.5 and >=11.5 were 9.2 (95% CI 7.25-11.27) and 12.6 (95% CI 10.02-15.27) months, respectively (p=0.14). 48 patients received bevacizumab therapy. VAT SUV mean (HR: 0.09; 95% CI 0.01-0.52, p=0.008) was significantly associated with PFS in patients receiving bevacizumab. SAT ratio was the significant parameter for the OS (HR: 0.58; 95% CI 0.33-1.01, p=0.05) and PFS (HR: 1.99; 95% CI 1.02-3.91, p=0.043).

Conclusions: SAT ratio was an independent prognostic factor for survival in patients with mCRC. Higher SAT volume is correlated with longer survival in mCRC patients.

Keywords: Colorectal cancer, 18F-FDG PET/CT, adipose tissue

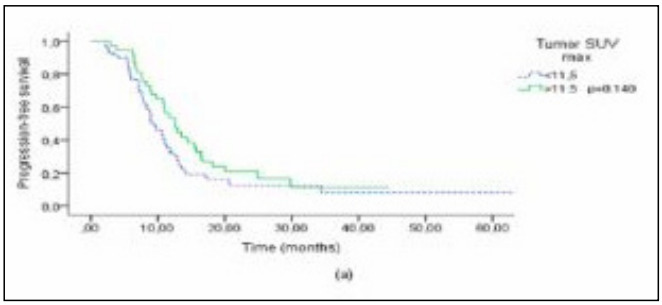

Figure 2. Kaplan-Meier curves for progression-free survival according to Tumor SUVmax

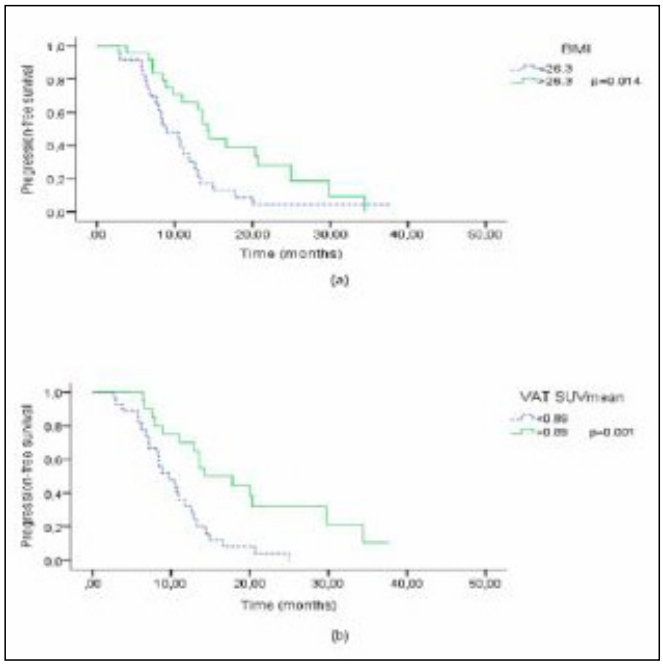

Figure 1. Kaplan-Meier curves for progression-free survival according to BMI (a) and VAT SUVmean (b) in patients receiving bevacizumab therapy

Table 1.Characteristics of patients

		No. of patients (%)	*Median (range)*
Age (years)			***61 (21-83)***
Gender	***Male*** ***Female***	***51 (61.5)*** ***32 (38.5)***	
BMI (kg/m2)			26.4 (13.8-39.1)
Primary tumor location	Right colon Left colon	13 (15.6) 70 (84.4)	
TNM stage	Stage 1-3 Stage 4	31 (37.4) 52 (62.6)	
Metastases	Liver Peritoneum Lung Others Multiple	31 (37.3) 10 (12.0) 15 (18.1) 9 (10.8) 18 (21.7)	
Adjuvant treatment	Yes No	28 (33.7) 55 (66.3)	
Comorbidity	Yes No	37 (44.5) 46 (55.5)	
Operation	Yes No	73 (87.9) 10 (12.1)	
Kras status	Mutant Wild	42 (50.6) 41 (49.4)	
Treatments	Bevacizumab therapy EGFR targeted therapy Chemotherapy	48 (57.83) 8 (9.63) 27 (32.53)	
Treatment response	Yes No	39(46.98) 44(53.01)	
VAT	Volume (cm3) Density (HU) SUV mean		77.17 (9.14-239.43) -96.00 (-109 and -78) 0.88 (0.41-1.18)
SAT	Volume (cm3) Density (HU) SUV mean		112.29 (23.65-379.69) -101 (-111 and -75) 0.36 (0.19-0.76)
Tumor SUV max			11.56 (2.47-36.85)
SAT ratio			-1.11 (-3.42 and -0.32)

BMI, body mass index; SAT, subcutaneous adipose tissue; VAT, visceral adipose tissue; HU, hounsfield unit; SUV, standardized uptake value; SAT ratio, SAT volume/SAT density.

Table 2. Univariate analysis for PFS and OS

	PFS		***OS***	
Variables	***Hazard ratio (%95 CI)***	***p value***	***Hazard ratio (%95 CI)***	***p value***
Age	0.99 (0.97-1.01)	0.777	1.012 (0.99-1.03)	0.299
Gender	1.58 (0.95-2.62)	0.073	1.110 (0.63-1.94)	0.717
BMI	0.97 (0.92-1.02)	0.306	0.965 (0.91-1.01)	0.165
Primary tumor location	0.93 (0.48-1.77)	0.825	2.519 (1.27-4.98)	0.008
TNM stage	1.29 (0.79-2.11)	0.300	1.041 (0.59-1.82)	0.890
Metastases	0.69 (0.42-1.13)	0.142	0.967 (0.55-1.69)	0.906
Adjuvant treatment	1.37 (0.82-2.28)	0.217	1.223 (0.68-2.18)	0.496
Comorbidity	0.48 (0.29-0.78)	0.003	0.789 (0.45-1.35)	0.392
Operation	0.88 (0.43-1.78)	0.730	0.985 (0.42-2.31)	0.972
Kras	1.38 (0.85-2.22)	0.185	1.026 (0.59-1.76)	0.926
Treatment	1.02 (0.63-1.65)	0.928	0.795 (0.45-1.38)	0.416
Treatment response	0.47 (0.29-0.77)	0.003	-	-
VAT volume	1.00 (0.99-1.00)	0.983	0.999 (0.99-1.00)	0.774
VAT density (HU)	0.99 (0.96-1.03)	0.938	0.997 (0.95-1.04)	0.899
VAT SUV mean	0.44 (0.12-1.65)	0.227	1.181 (0.25-5.41)	0.831
SAT volume	0.99 (0.99-1.00)	0.355	0.998 (0.99-1.00)	0.423
SAT density (HU)	1.00 (0.97-1.03)	0.727	0.982 (0.94-1.02)	0.353
SAT SUV mean	0.38 (0.04-3.20)	0.378	0.493 (0.04-5.84)	0.575
SAT ratio	1.2 (0.79-1.94)	0.34	0.586 (0.34-1.00)	0.053
Tumor SUV max	0.95 (0.92-0.99)	0.014	1.353 (0.45-4.05)	0.589

PFS, progression-free survival; OS, overall survival; BMI, body mass index; SAT, subcutaneous adipose tissue; VAT, visceral adipose tissue; HU, hounsfield unit; SUV, standardized uptake value; SAT ratio, SAT volume/SAT density.

Table 3. Multivariate analysis for PFS and OS

	PFS		***OS***	
Variables	***Hazard ratio (%95 CI)***	***p value***	***Hazard ratio (%95 CI)***	***p value***
Gender	1.70 (1.00-2.90)	0.050	-	-
Comorbidity	0.61 (0.36-1.04)	0.073	-	-
Tumor SUV max	0.96 (0.92-0.99)	0.036	-	-
Primary tumor location	-	-	0.303 (0.14-0.62)	0.001
SAT ratio	-	-	0.476 (0.26-0.84)	0.011

PFS, progression-free survival; OS, overall survival; SAT, subcutaneous adipose tissue; SAT ratio, SAT volume/SAT density.

OP-09

ADVANCED HEPATOCELLULAR CANCER IN TURKEY AND SORAFENIB TREATMENT: REAL LIFE EXPERIENCE

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Aims: Systemic treatment is preferred in cases of advanced hepatocellular cancer (HCC). Sorafenib is the first targeted therapy approved for patients with advanced HCC. SHARP and Asia Pacific trials have shown that sorafenib improves overall survival compared to placebo. However, resistance to sorafenib is developing. There may be inconsistency between data collected in controlled clinical trials and clinical practice. The main purpose of this study is to evaluate real-life experiences with sorafenib in patients with advanced HCC in 6 centers covering the majority of Ankara and may reflect Turkey, and to estimate the number of patients who can reach second-line treatment.

Methods: Patients who treated with sorafenib for HCC treatment were included in the study. Demographic, clinical, and laboratory data were collected retrospectively. Patients were included in the study without restriction for their previous treatment. Overall (OS) and progression free survival (PFS), response rates, and safety data were analyzed.

Results: 147 patients receiving sorafenib from 6 centers were included in the study. The median age was 63.6 (21.2-91.8). The majority of the patients had ECOG performance status 0-1 (%84.1). The most common etiology was hepatitis B virus with 58.9%. Before sorafenib, 28.6% (n=42) patients received systemic chemotherapy and 46.3% (n=68) patients received local treatments (TAKE, TARE, RF ablation). 26.5% (n=39) of patients did not receive treatment. At the start of sorafenib treatment, 88.4% of patients were Child-Pugh (CP)-A, 11.6% of patients were CP-B, 32.7% of patients were Barcelona Clinic Liver Cancer Stage (BCLC)-B, and 67.3% of patients were BCLC-C. The median follow-up of patients was 6.6 (0.6-101.8) months. The median PFS was 4.8 months (95% CI, 4.0 to 5.5) and the median OS was 8.5 months (95% CI 6.5 to 10.4). 11.3% of patients had complete (n=1) and partial response (n=13) and 36.3% of patients had stable disease (n=45) as best tumor response. The median PFS was 5.1 (95% CI, 4.3 to 5.9) and 2.9 months (95% CI, 2.3 to 3.5), the median OS was 9.8 months (95% CI 6.4 to 13.2) and 5.3 months (95% CI, 4.1 to 6.5) in patients with CP-A and CP-B, respectively. There was a difference in survival between CP-A and B (p = <0.001). The most common adverse event was diarrhea (19.7% grade 1-2, 6.8% grade 3), fatigue and hand-foot syndrome were reported in 10.2% and 18.4% grade 1-2, 12.2% and 4.1% grade 3-4, respectively. Dose reduction was required in 39.8% of patients due to toxicity. 48.5% (n=63) of patients were able to receive treatment after sorafenib. The most common subsequent treatments were chemotherapy (55.5%) and regorafenib (39.7%).

Conclusions: Overall and progression free survival were similar in routine clinical practice compared to phase III pivotal SHARP and Asia Pacific trials. However, response rates were found to be higher. It was observed that there were similar adverse events compared to the clinical trials.

Keywords: Hepatocellular cancer, sorafenib, real-life experience

OP-10

TREATMENT OUTCOMES OF NEOADJUVANT RADIOTHERAPY AND OXALIPLATIN-BASED CHEMOTHERAPY IN PATIENTS WITH RECTAL CANCER: SINGLE-CENTER EXPERIENCE

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Purpose: The aim of the study is to evaluate the treatment outcomes in patients receiving neoadjuvant radiotherapy (RT) and oxaliplatin-based chemotherapy for locally advanced rectal cancer.

Methods: The medical records of 52 patients with locally advanced rectal cancer treated with neoadjuvant RT and oxaliplatin-based chemotherapy (CT) regimens between 2018 and 2020 were retrospectively evaluated. Short course RT was delivered as 25 Gy in 5 fractions. Long term RT was delivered as 50.4 Gy in 28 fractions with concomitant capecitabine of 825 mg/m2, twice daily. The clinical and treatment characteristics of the patients, local control and survival rates, and toxicity results were analyzed using IBM SPSS 23.0 software.

Results: The median age was 57 (range, 33-75). Sixty-seven percent of patients were male. The tumor was located at distal rectum in 28 (54%) patients, mid-rectum in 11 (21%) patients, and proximal rectum in 13 (25%) patients. Mesorectal fascia involvement was reported in 32 (62%) patients. According to AJCC TNM Staging System v8, T stage was T2 in 1 (2%), T3 in 42 (81%), T4a in 5 (9%), T4b in 2 (4%), Tx in 2 (4%) patients, respectively, and N stage was N0 in 9 (17%), N1 in 22 (42%), N2 in 21 (41%) patients, respectively. Eight (15%) patients had metastatic disease at the time of diagnosis. Eight (15%) patients were treated with short course RT, and 44 (85%) patients with long term RT. Concomitant capecitabine was administered to all patients treated with the long term RT. Forty-six (89%) patients underwent surgery after neoadjuvant RT. The median time to surgery after neoadjuvant RT was 11 (IQR, 8-15) weeks. Complete response was observed in 3 (6%) patients. Total neoadjuvant treatment approach was applied to 11 (21%) of the patients, 27 (52%) patients received both adjuvant and neoadjuvant CT, and 14 (27%) patients received only adjuvant CT. CAPOX regimen was administered to 40 (77%) patients and FOLFOX to 12 (23%) patients. The median follow-up time was 27,2 months (IQR, 18,4-32). The 1 and 2-year overall survival rate was 94% and 88%, local recurrence-free survival rate was 94% and 88%, and distant metastasis-free survival (DMFS) rate was 86% and 73%, respectively. Although longer 1 and 2-year DMFS was achieved in whom

receiving CAPOX (86% and 75%) it was not statistically significant (p>0.05). The treatment was well tolerated. Acute or late >=grade 3 toxicity was not observed in any patient

Conclusion: Oxaliplatin-based regimens are effective and safe treatment modalities in patients with locally advanced rectal cancer receiving neoadjuvant radiotherapy.

Keywords: Oxaliplatin-Based Chemotherapy, Radiotherapy, Rectal Cancer

OP-11

RETROSPECTIVE COMPARISON OF MFOLFIRINOX AND GEMCITABINE-BASED DOUBLET CHEMOTHERAPY IN METASTATIC PANCREAS CANCER AS FIRST-LINE TREATMENT

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Aim: It was aimed to compare mFOLFIRINOX and gemcitabine-based doublet chemotherapy in patient with metastatic pancreas adenocarcinoma as first-line treatment.

Methods: The study is a restrospective observational study. Patients who were admitted to medical oncology clinic of Dr. Abdurrahman Yurtaslan Ankara Oncology Teaching and Research Hospital and diagnosed with metastatic pancreas adenocarcinoma and treated with either mFOLFRINOX or gemcitabine-based doublet chemotheray as first-line treatment between January 2012-December 2020 were included in the study. Clinocopatholgic characteristics and survival outcomes of both groups were compared.

Results: There were 59 (64.8%) patients in the mFOLFIRINOX arm and 32 (35.2%) patients in the gemcitabine-based chemotharapy arm. The median age was 54 (years, range: 33-72) in the mFOLFIRINOX arm and 62 (years, range: 42-84) in the gemcitabine-based chemotharapy arm (p=0.001). There were 5 (31.2%) geriatric patients (>=65 years old) in the mFOLFIRINOX arm and 11 (68.8%) geriatric patients in the gemcitabine-based chemotharapy arm (p=0.002). Other characteristics were equally distributed between arms. The mPFS was 6.4 months (95% CI, 5.8-7.0) and 4.3 months (95% CI, 1.8-6.8) (p=0.411), and the mOS was 10.8 months (95% CI, 8.3-13.3) and 8.7 months (95% CI, 5.7-12.2) (p=0.753) in the mFOLFIRINOX arm and in the gemcitabine-based chemotharapy arm, respectively. In the univariate analyses of progression, tumor localization in pancreatic body decreased progression (HR 0.55, 95% CI 0.35-0.86, p=0.010), and tumor localization in pancreatic tail (HR 2.16, 95% CI 1.02-4.57, p=0.042) and liver metastasis (HR 2.20, 95% CI 1.22-3.96, p=0.009) increased progression. The mFOLFIRINOX regimen had no significant effect on progresion (HR 0.83, 95% CI 0.53-1.29, p=0.413). In the multivariate analysis of progression, liver metasitasis (HR 1.91, 95% CI 1.05-3.48, p=0.034) increased progression. In the univariate analyses of death, tumor localization in pancreatic body decreased death (HR 0.55, 95% CI 0.35-0.87, p=0.010), and tumor localization in pancreatic tail increased death (HR 3.34, 95% CI 1.55-7.15, p=0.002). The mFOLFIRINOX regimen had no significant effect on death (HR 1.07, 95% CI 0.68-1.70, p=0.754). In the multivariate analysis of death, tumor localization in pancreatic body decreased death (HR 0.60, 95% CI 0.38-0.96, p=0.035), and tumor localization in pancreatic tail increased death (HR 2.65, 95% CI 1.2-5.84, p=0.015).

Conclusion: In the current study, although there were significantly increased number of geriatric patients in the gemcitabine-based doublet arm compared with those in the mFOLFIRINIX arm, it was revealed that there was no significant difference between mFOLFIRINOX and gemcitabine-based doublet chemotheapy groups regarding PFS and OS.

Keywords: Pancreas cancer, mFOLFIRINOX, gemcitabine

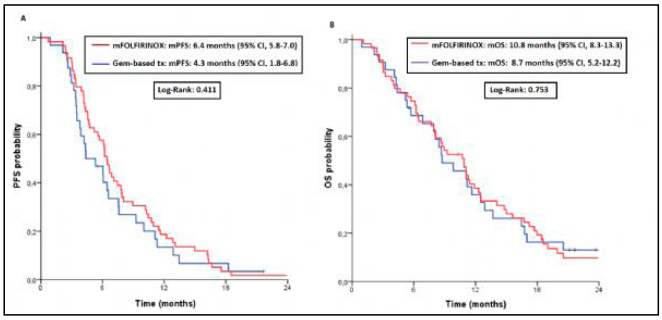
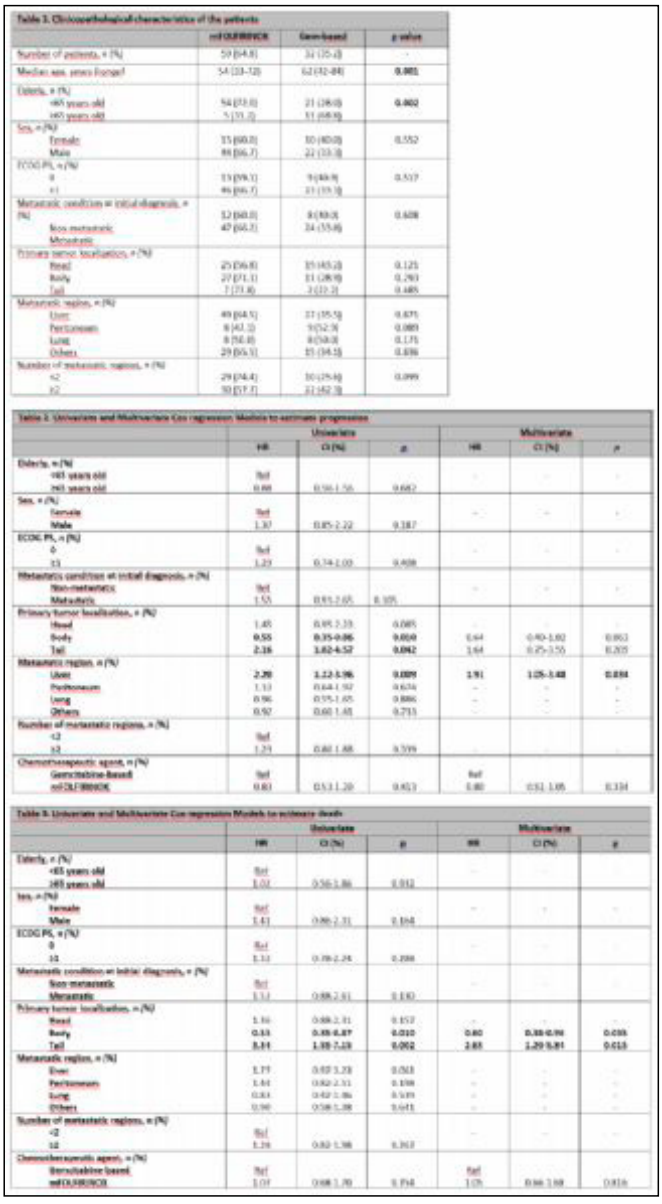


Figure 1. Kaplan-Meier curves of progression-free survival (PFS) with first-line treatment (A), and overall survival (OS) (B) in patients with metastatic pancreas adenocarcinoma.



OP-12

COMPARATIVE EVALUATION OF DIAGNOSTIC PERFORMANCES OF GD-EOB MR AND MDCT IN DETECTING LIVER METASTASES OF COLORECT CANCER

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Introduction: 60% of patients with colorectal cancer have metastatic spread at the time of the diagnosis and 30% of these liver is the site of metastasis. Although Multi-detector Computed Tomography (MDCT) is the most commonly used modality for initial staging, usage of hepatocyte-spesific MR contrast agents have led to better lesion characterization and increased sensitivity to detect liver lesions. Gadolinium ethoxybenzyl diethylenetriamine pentaacetic acid (Gd-EOB-DTPA) is a hepatocyte-spesific agent that provides information about the contrast enhancement of a liver lesion and has been reported to have a high sensitivity and specificity in lesion detection. We compared the diagnostic performances of MR imaging (MRI) and MDCT in detecting liver metastases with histopathological verification serving as the reference standard.

Material-Methods: In this retrospective study; 148 patients who have been operated for CRC with resection of the primary tumor and/or with hepatic resection for suspected metastases between January 2017 and December 2019 were determined. 105 of these did not met the inclusion criteria were excluded and 43 patients with histopathologically confirmed hepatic metastases were enrolled in the study. Two radiologists independently evaluated all MDCT and Gd-EOB MR images. A total of 85 liver lesions on MDCT and MRI were evaluated by a three-scale scoring(1=Definitely benign, 2=Indeterminate and 3=Definitely metastasis)(Fig1,2). Of these, 73 lesions were evaluated as metastatic (score 3) to be counted in. All metastatic lesions were confirmed pathologically and were correlated with the intra-operative visually exposed sites and/or histopathological findings of the resected hepatic segments on a lesion-by-lesion basis.

Results: On a per-lesion basis the diagnostic sensitivity of Gd-EOB MR for metastatic lesions was statistically higher than that for MDCT. (Table 2). Overall sensitivities for the detection of small metastases (<1cm) were also significantly higher with Gd-EOB MR compared to MDCT (68% vs 75.9%; p<0.05; for MR vs CT, respectively) (Table 3). Diagnostic sensitivity of per-patient MRI was statistically higher than that of MDCT (Reader 1: 95.3% [41/43] vs. 76.7% [33 /43] [p < 0.001], Reader 2: 93% [40/ 43] vs. 79.1% [34/ 43] [p < 0.001]) (Table 2). Although positive predictive values (PPV) of both readers were higher with Gd-EOB for the detection of overall metastases than those with MDCT, did not reach a statistical difference (89.1% vs 86.9%, p>0.05). On the other hand, PPV for for the detection of small metastases were significantly higher with Gd-EOB than MDCT (89.1% vs 77.2%, p=0.04). The inter-reader agreement on diagnosing lesions were moderate to excellent (k: 0.56–0.86) for MRI and excellent for MDCT (k: 0.75–0.8).

Conclusion: In our study Gd-EOB MR showed statistically higher diagnostic performance in detecting liver metastases compared to MDCT. In particular, MR can detect more small-sized (<1cm) metastases.

Keywords: Gd-EOB-DTPA MRI, MDCT, liver metastas

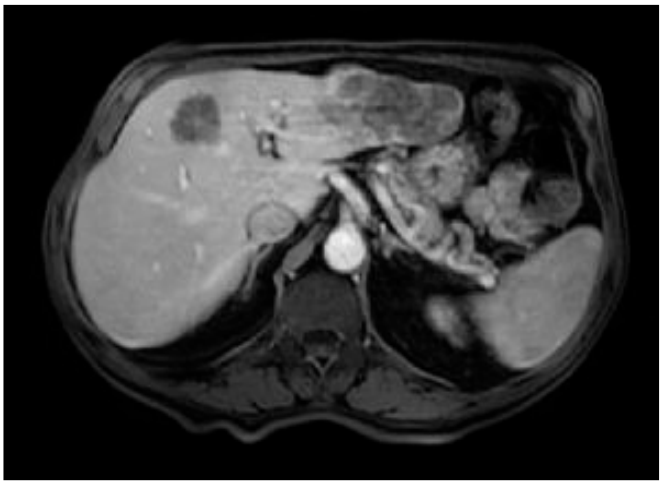

Figure 1. Gd-EOB enhanced MRI at hepatobiliary phase showing two hypointense lesions ((Score 3 metastases) on segments IV and II

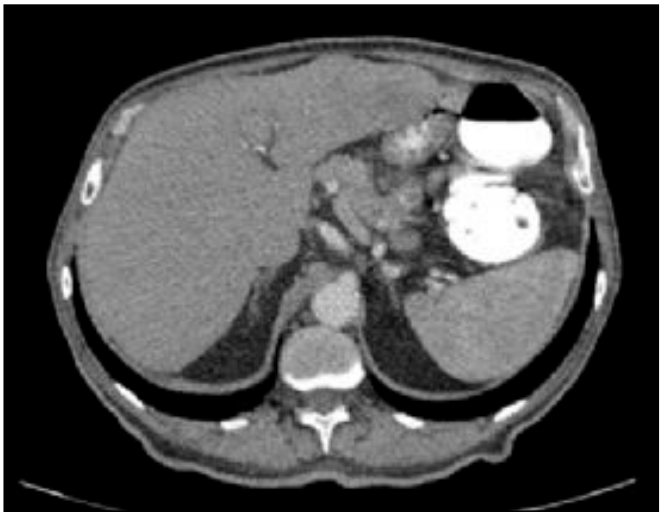

Figure 2. Contrast-enhanced MDCT at portal phase failing to demonstrate the segment IV lesion with a faint hypodensity on segment II

OP-13

NUCLEAR EXPORTER PROTEIN EXPORTIN 1 INHIBITION SUPPRESSES THE GROWTH OF PANCREATIC NEUROENDOCRINE TUMORS

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Pancreatic neuroendocrine tumors (PNETs) are rare islet cell tumors. Although slow growing in early stages, the overall survival rates of metastatic PNETs is dismally low at 25%. The main treatment option includes surgery followed by chemotherapy or targeted therapy. Unfortunately, advanced PNETs show minimal response to FDA approved therapies suggesting the urgent need for the identification of novel and effective treatments. In the present study, we have tested 1st and 2nd generation XPO1 inhibitors also known selective inhibitor of nuclear export (SINE) on BON1 and QGP1 PNET tumor cells. Growth inhibition was determined by MTT assay and colony formation assay. Apoptosis was determination by flow cytometry (annexin V-propidium iodide), real time RT-qPCR (SYBR green I), western blotting, immunofluorescence (IF). For the determination of band density, NIH

ImageJ 1.5Oi software was utilized. The IC50s for SINE namely KPT-185, KPT-330 (selinexor/XPOVIO), KPT-8602 (eltanexor) were 26 nM, 283 nM, 1027 nM respectively against BON1 cells. Similar trends in the IC50s was observed in QGP1 cells. The 1st and 2nd generation SINE, KPT-330 and KPT-8602 respectively reduced the number and area of the colonies significantly. SINE compounds were able to induce apoptosis at pharmacologically relevant concentrations. The PNET marker Chromogranin A was found to be reduced in the SINE treated cells in IF assay. Western blot analysis revealed significant induction of PARP cleavage by SINE. XPO1 inhibitors could also suppress pmTOR and pP70S6K along with mTORC2 pathway molecule RICTOR in QGP1 cells. Taken together, this is the first study to reveal the therapeutic potential of novel XPO1 targeted agents for the treatment of PNETs. The in vivo evaluations of SINE compounds in xenograft models are underway.

Keywords: Pancreatic neuroendocrine tumors, Nuclear Protein Transport, Specific Inhibitor of Nuclear Export

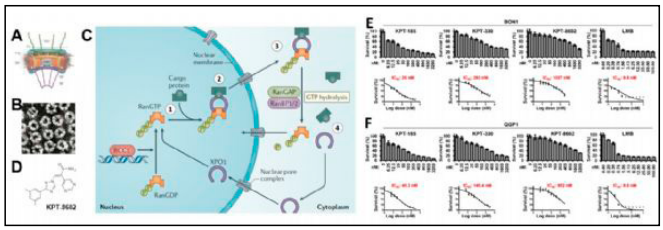

Figure 1. Schematic diagrams. A. Diagram of nuclear pore complex (NPC). B. Electron microphotograph of NPC. C. Mechanism of nuclear export: 1) Exportin-1 (CRM1/XPO1) hydrophobic groove binds to the leucine rich nuclear export signal (NES) domain of the cargo proteins. RanGTP and protein cargos bind to exportin-1 forming stable ternary and activate it by 3D conformational change. 2) Activated complex binds to NPC, a large supramolecular complex composed of more than 30 different proteins, the nucleoporins. 3) XPO1-complex passes through NPC and enters cytoplasm. 4) In the cytoplasm, the ternary exportin-1-cargo-RanGTP complexes are dissociated. Excessive nuclear export by XPO1 causes mislocalization dependent inactivation of tumor suppressors. Selective inhibitor of nuclear export (SINE) compounds (KPT-8602) bind to XPO1 and block nuclear export function D. Structure of next generation SINE compound KPT-8602 (eltanexor). E. BON1 cells. F. QGP1 cells. Cells were treated with varying doses of drugs for 72 hours. MTT assay was performed to determine the growth inhibition.

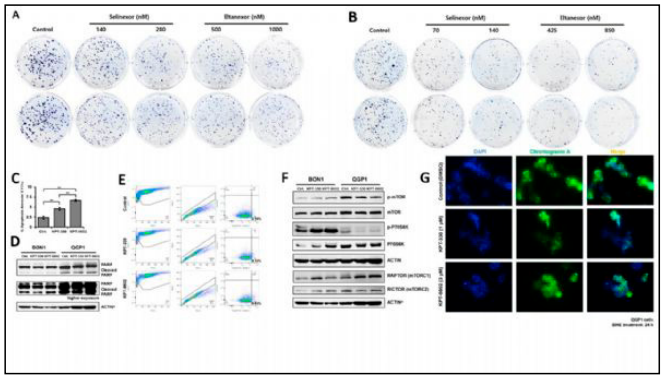

Figure 2. A.B. Colony formation ability in BON1 and QGP1 cells under KPT-330 and KPT-8602 treatment. Apoptotic cell deaths in PNET cells under KPT-330 and KPT-8602 treatment. C. Bar diagram showing the apoptotic cell deaths in BON1 cells. D. Representative FACS images. E. Western blot analysis of PARP cleavage in BON1 and QGP1 cells (72 hrs). F. Western blot analysis of mTOR pathway associated proteins in BON1 and QGP1 cells treated with KPT-330 and KPT-8602 (72 hrs). Cells were treated with IC50 doses of the drug for 72 hours. G. Immunofluorescence (IF) detection of Chromogranin A in QGP1 cells treated with KPT-330 and KPT-8602. Cells were grown in poly-L-lysine coated chamber slide, treated with indicated concentration of SINE compounds for 24h.

OP-14

CLINICAL AND PATHOLOGICAL CHARACTERISTICS OF YOUNG ADULT COLON CANCER PATIENTS

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Objective: In the last few decades, the incidence of colon cancer has been increasing in young adult patients. In addition, colon cancers diagnosed in young adults have some differences. In this study, we aimed to describe the clinicopathological features of patients with resected stage II-III colon cancer (CC) diagnosed in young adults.

Methods: Patients with stage II-III CC (n=415) diagnosed in Hacettepe University Medical Oncology department between 2008-2021 were included. The patients were dichotomized at diagnosis age (<40 years vs >=40 years). Clinicopathological data were retrieved from medical records. Chi-square analysis was used to compare the ratios between these two groups. A P-value <0.05 was considered significant.

Results: Clinicopathological features of the patients are shown in Table 1. The rate of patients diagnosed at <40 years old was 6% in 2010 and before, 10.7% between 2011-2015 and 6.3% between 2016-2021. 5 year overall survival was 81% vs 77% in age<40 years vs >=40 years (p=0.28). 5-year relapse-free survival was 74% vs 82% in age <40 years vs >=40 years (p=0.34). Younger patients had numerically higher rate of dMMR disease and chemotherapy receipt for stage 2 disease, although not statistically significant.

Conclusions: We found no difference between clinicopathological features and survival of patients with colon cancer diagnosed under 40 years of age compared to those diagnosed over 40 years of age.

Keywords: colon cancer, young adult patients

Table 1. Demographic and Clinicopathological Characteristics and Comparative Analyzes

	<40 Year	≥40 Year	
N (%)	34	381	
Diagnosis Age			
Median (Min-max)	36.4 (19-40)	63.4 (41-91)	
N (%)			**p**
Sex			0.54
Female	15 (44%)	148 (39%)	
Male	19 (56%)	233 (61%)	
Tumor Location			0.83
Right	13 (38%)	150 (40%)	
Left	21 (62%)	224 (60%)	
Histological Grade			0.98
Well- Moderately differentiated	20 (80%)	254 (80%)	
Poor differentiated	5 (20%)	64 (20%)	
T Stage			0.2
T1-T2	2 (6%)	6 (2%)	
T3	19 (58%)	235 (62%)	
T4	12 (36%)	136 (36%)	
N Stage			0.19
N0	14 (41%)	201 (53%)	
N1+N2	20 (59%)	180 (47%)	
TNM Stage			0.21
II	14 (41%)	199 (52%)	
III	20 (59%)	182 (48%)	
LVI			0.30
Present	11 (69%)	112 (55%)	
Absent	5 (31%)	90 (45%)	
PNI			0.20
Present	8 (67%)	79 (48%)	
Absent	4 (33%)	86 (52%)	
Obstruction/Perforation			0.33
Has any	9 (27%)	76 (20%)	
Neither	24 (73%)	302 (80%)	
Number of LN Removed			0.44
<12	3 (10%)	61(17%)	
≥12	28 (90%)	307 (83%)	
NLR			0.56
<5	28 (85%)	334 (89%)	
≥5	5 (15%)	43 (11%)	
Chemotherapy in Stage 2			0.18
Received	10 (77%)	111 (58%)	
Not received	3 (23%)	80 (42%)	
Chemotherapy in Stage 3			1
Received	18 (95%)	159 (91%)	
Not received	1 (5%)	15 (9%)	
MMR Status			0.26
d MMR	4(23%)	21 (13%)	
p MMR	13 (77%)	144 (87%)	

LVI: Lymphovascular Invasion, PNI: Perineural Invasion, LN: Lymph Nodes, NLR: Neutrophil lymphocyte ratio, dMMR: deficient mismatch repair, pMMR:proficient mismatch repair

OP-15

EVALUATION OF GASTROINTESTINAL CANCER PATIENTS RADIOLOGICALLY-DIAGNOSED WITH SINUSOIDAL OBSTRUCTION SYNDROME: SINGLE-CENTER EXPERIENCE

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Introduction: Oxaliplatin is one of the most commonly used agents in the treatment of gastrointestinal cancers. The liver-specific side effect is that it causes sinusoidal obstruction syndrome (SOS) by damaging the sinusoidal endothelial cells. Liver biopsy is the gold standard for the diagnosis. Radiologically, the diagnosis can be made non-invasively, especially with magnetic resonance imaging (MRI) with liver-specific contrast agent. Here, we aimed to present the clinical features and treatment responses of gastrointestinal (GI) cancer patients radiologically-diagnosed with sinusoidal obstruction syndrome after oxaliplatin-based treatment in our hospital.

Methods: Patients diagnosed with SOS radiologically (with CT or MRI) between June 2015 and June 2021 were screened retrospectively through the hospital automation system. Among these patients, 51 patients who received oxaliplatin-based chemotherapy regimen in the neoadjuvant, adjuvant or metastatic period due to GI malignancy were analyzed. The clinical and pathological features of the patients, chemotherapy regimens, the date of SOS diagnosis, progression and death dates, if any, were recorded. Descriptive statistics for the clinical and pathological characteristics of the patients, and Kaplan-Meier analysis for progression-free and overall survival after SOS were performed.

Results: Thirty-three (64.7%) of 51 patients were male. The median age of cancer diagnosis of the patients was 57.1 (29.2–73.5) years. Approximately three-quarters of the patients (76.5%) had a diagnosis of colorectal cancer. Twenty- five (49%) patients treated with oxaliplatin-based regimen in the metastatic period, 22 (43.1%) in the adjuvant period, and 4 (7.8%) in the neoadjuvant period. Oxaliplatin was discontinued in 47 (92.2%) patients with SOS, and dose reduction was performed in 4 (7.8%) patients. Forty-four (86.3%) patients were asymptomatic. Of the 6 patients with symptoms, 5 had ascites, 1 had ascites, and increase in bilirubin level. Approximately one fourth (23.5%) of the patients had SOS-related splenomegaly. Any level of thrombocytopenia developed in 89.2% of the patients, and the majority (74.6%) were grade 1 or 2. Elevated AST at grade 1-3 level developed in 55.1% of the patients. SOS-related chronic liver disease occurred in 2 patients without known liver disease. Radiographically, the time to develop SOS was determined as a median 5.0 months (1.3 - 79.0) after the first dose of oxaliplatin. The median time to progression after the development of SOS was 3.6 months (95% CI, 1.1–6.2) in metastatic patients, while the median was not reached in patients treated with adjuvant therapy. In the overall survival analysis, the median was not reached in both the metastatic and adjuvant treatment groups.

Conclusion: SOS is a condition to be alerted to in patients receiving oxaliplatin-based chemotherapy and it is often sufficient to discontinue oxaliplatin in the early period.

Keywords: gastrointestinal cancers, oxaliplatin, sinusoidal obstruction syndrome

Relaps-Free/Progression-Free Survival after SOS

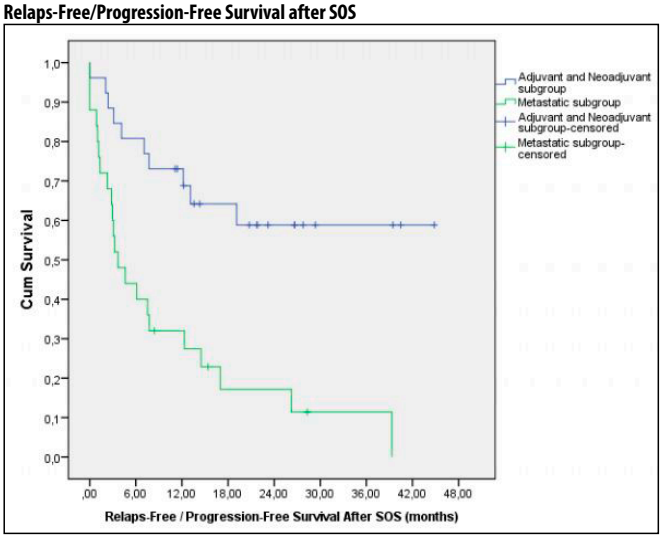

Figure 1. Median time to progression after the development of SOS was 3.6 months (95% CI, 1.1 – 6.2) in metastatic patients, while the median relaps-free survival was not reached in patients treated with adjuvant therapy.

Table 1. Characteristics of Patients

Parameters	*N (Number of Patients)*	*% (Percent)*
Sex		
Female	18	35.3%
Male	33	64.7%
Cancer diagnosis age (median, min-max)	57.1 (29.2–73.5)	
Treatment period		
Metastatic	25	49%
Adjuvant	22	43.1%
Neoadjuvant	4	7.8%
Chemotherapy Regimens		
CAPOX	18	35.3%
FOLFOX±Anti-EGFR/Bev	13	25.6%
FOLFIRINOX±Anti-EGFR/Bev	11	21.6%
FOLFOX	7	13.7
FLOT	2	3.9%
Radiological SOS Findings		
Consistent with SOS	38	74.5%
Significant findings in terms of SOS	9	17.6%
Focal nodular hyperplasia-like lesions due to SOS	4	7.8%
Symptom Status		
Asymptomatic	45	88.2%
Symptomatic	6	11.8%
SOS-related splenomegaly		
Present	12	23.5%
Absent	35	68.6%
Splenectomized	4	7.8%
Thrombocytopenia		
Grade 1	24	47.1%
Grade 2	14	27.5%
Grade 3	4	7.8%
Grade 4	3	5.9%
Increase in Aspartate Aminotransferase		
Grade 1	20	39.2%
Grade 2	2	3.9%
Grade 3	1	2%
Increase in Alanine Aminotransferase		
Grade 1	11	21.6%
Grade 2	-	-
Grade 3	2	3.9%

dian CA 19-9 level, neutrophil/lymphocyte ratio (NLR), and systemic inflammation index (SII) value is 205 kU/l (IQR, 79-667), 2.46 (IQR, 1.74-3.21), and 514 (IQR, 375-753), respectively. SBRT was applied for primary lesion in 18 patients, recurrent lesion in 3 patients, and both recurrent lesion and lung metastasis in 1 patient. The median total dose of SBRT was 33 Gy (IQR, 30-35 Gy), and the number of treatment fractions was 5 in 21 patients and 3 fractions in 1 patient. The median follow-up time was 12 months (IQR, 7-19). After SBRT, 23% of the patients showed complete response, 41% partial response, 27% stable disease, and 9% progression in the primary tumor. Local recurrence was observed in 3 (14%) patients after SBRT, while 13 (59%) patients had distant metastasis. Although it did not reach statistical significance, median local recurrence-free survival was higher in patients receiving a total SBRT dose of >30 Gy than those receiving a total SBRT dose of <=30 Gy (37.4 vs 21.1 months, p=0.95). One- and 2-year overall survival (OS) rates were 55% and 22%, respectively. The median survival was found to be better in patients with pre-RT Ca19-9 level less than 250 kU/l (24 months vs. 9 months, p=0.02) compared to those with >250 kU/l. Median distant metastasis-free survival (DMFS) was 9.6 ± 2.1 months (95% CI: 5.3-13.8 months). Twenty patients had received neoadjuvant chemotherapy. Tumor size, administration of neoadjuvant chemotherapy and NLR did not affect local control, OS and DMFS. Patients with a SII value of <=514 had higher OS and DMFS rates than those with a SII value of >514 (20 vs 9 months and 12 vs 9 months, respectively), however, it did not reach statistical significance (p=0.172 and p=0.310, respectively). Of the patients who received neoadjuvant chemotherapy, 30% received gemcitabine chemotherapy and the remaining 70% received FOLFIRINOX chemotherapy. No difference was found in treatment outcomes regarding neoadjuvant chemotherapy regimen. No patients had acute or late grade 3 or higher toxicity.

Conclusion: SBRT allows high dose prescription to the tumor while maximizing normal tissue protection, providing excellent local control and low toxicity rates in patients with medically inoperable or locally advanced pancreatic cancer. However, distant metastasis rates are still high.

Keywords: Gastrointestinal Cancers; Pancreatic Cancer; SBRT

OP-16

ONCOLOGICAL OUTCOMES OF STEREOTACTIC BODY RADIATION THERAPY IN PATIENTS WITH LOCALLY ADVANCED PANCREATIC CANCER, HACETTEPE UNIVERSITY EXPERIENCE

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Purpose: We aimed to evaluate oncological outcomes in patients with locally advanced pancreatic cancer (LAPC) treated with stereotactic body radiation radiotherapy (SBRT).

Methods: The data of 22 patients who underwent SBRT between March 2009 and November 2020 with the diagnosis of medically inoperable or LAPC were retrospectively analyzed. SPSS v23.0 was used for analysis.

Results: The mean age was 63 (range, 42-81 years). Sixty eight percent of patients are male and 50% have a history of smoking. Staging was performed with a combination of MRI and PET-CT in 72% of the patients. At the time of diagnosis, the me-

OP-17

PERIOPERATIVE PREDICTORS OF EARLY RECURRENCE FOR PANCREATIC DUCTAL ADENOCARCINOMA AFTER CURATIVE RESECTION: A RETROSPECTIVE ANALYSIS OF SINGLE-CENTER EXPERIENCE

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Background: Radical resection is the only curative treatment option for patients with pancreatic ductal adenocarcinoma(PDCA). Despite radical resection, local or systemic recurrence occurs in 80% of patients and 30% of patients dying within one year. We aimed to identify perioperative risk factors for early recurrence after curative PDCA resection.

Material and Methods: One hundred and sixty three PDCA patients who underwent R0 or R1 resection were retrospectively analyzed. Early recurrence(ER) was defined as recurrence occurring in first 6 months after surgery. We used a logistic regression analysis to assess potential risk factors for ER.

Results: ER was seen in 58(35.8%) patients. Patients with ER had 1-year and 2-year overall survival(OS) rates of 43% and 8%, respectively, compared with 82% and 47% for those with non-ER(p<0.001). Preoperative risk factors for ER included ECOG performance status(odds ratio(OR):3.26, 95% confidence interval (CI): 1.19–8.93), carbonhydrate antigen ca 19-9(CA19-9) levels>208U/ml(OR:3.11, CI:1.14-8.47) and corpus/tail tumor localized tumor(OR:2.98, CI:0.99-8.9). Postoperative risk factors for ER were pathologic tumor size>3cm (OR:4.2, CI:1.49-11.78) and no adjuvant treatment (OR:11.58, CI:3.13-42.79).

Conclusion: Results of this study suggesting that it would be more appropriate to receive neoadjuvant chemotherapy before surgery in patients with ECOG performance status>0,CA19-9 levels >208U/ml and corpus/tail localized tumor in patients with pancreatic ductal adenocarcinoma who were evaluated as anatomically resectable.

Keywords: Pancreatic ductal adenocarcinoma, early recurrence, CA 19-9 antigen

OP-18

REALWORLD TREATMENT OUTCOMES FROM NATIONWIDE ONCO-COLON TURKEY REGISTRY IN PATIENTS WITH METASTATIC COLORECTAL CANCER

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Background: Efficacy of anti-angiogenic and anti-EGFR agents has been demonstrated metastatic colorectal cancer (mCRC). Real-world evidence is especially important to detect the findings of patients outside of clinical trials. It complements together with clinical trials. However, there are a few studies that evaluated these treatments with biologics in the real-world setting. Recognizing the change that has occurred over the years will also shed light on future approaches. Therefore, we aimed to investigate the real-world data of patients with RAS-wild type mCRC.

Methods: Medical records from 28 centers were collected for patients diagnosed with RAS wild-type mCRC between January 2016 and April 2019 and were included into the study. Histopathological, molecular and clinical characteristics of the patients were recorded. The treatment duration, response rate, progression-free survival and safety results were determined. Also, changes over the years were compared. Patients were compared according to the first-line biological treatments as anti-EGFR group (Group A and B) (panitumumab and cetuximab) and anti-VEGF group (group C).

Results: Patients with KRAS mutant type were 43,6% and 6.1% patients were NRAS mutant type. A total of 1064 patients with documented RAS wild-type status were evaluated. 33%, 37% and 30% of all first line patients were treated with regimen including panitumumab, cetuximab and anti-VEGF, respectively. The median follow-up time was 24 (1-59) months. Median age was 61 (17-88) years. Thirty-five percent of the patients were female. Twenty percent of the patients had a right-sided colon tumor. Patients received median 6 cycles of treatment. Also, responded patients received median 6 cycles of treatment as maintenance treatment with biologics plus fluoropyrimidine. Overall response rate was 46,4%, 41,9% and 41,5% in A, B and C group respectively (p = 0,170). The median OS was 26, 27, and 23 months in A, B and C group respectively (p = 0.044). The median PFS of the patients in first-line setting that received panitumumab, cetuximab and bevacizumab were 11.6 (SE:0,6; 95% CI: 10.4-12.7), 11.0 (SE:0,5; 95% CI: 9.9-12.0), and 9.6 (SE:0,4; 95% CI: 8.8-10.4) months respectively (p = 0.012). In univariate analysis, female gender (p = 0.030), left sided tumors(p = 0.001), ECOG performance status (PS) 0-1 (p = 0.001), normal CEA level at initial diagnosis(p = 0.001) and treatment with anti-EGFR agents(p = 0.016) were found as favorable factors. PS 0-1 and normal CEA level at initial diagnosis were found as independent prognostic factors in multivariate analysis (p = 0.049, p = 0.031 respectively).

Conclusions: This analysis of real-world data confirms the comparable efficacy of anti-EGFR agents in RAS-wild type mCRC. However, anti-EGFR treatment provides PFS and OS advantage when compared with anti-VEGF treatment in these patients.

Keywords: colorectal cancer, anti egfr treatment, registry

OP-19

HEPATOCELLULAR CARCINOMA

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Hepatocellular carcinoma (HCC) is the most common primary hepatic malignancy in the world, with an increasing worldwide prevalence. Prevention and eradication of HCC risk factors, screening for and diagnosis of HCC, treatment of documented cases of HCC, and post-treatment follow-up are best handled by a multidisciplinary care team.

American Association for the Study of Liver Diseases guidelines indicate HCC surveillance with non-contrast-enhanced abdominal ultrasound for several welldefined subsets of the population: patients with cirrhosis of any etiology as well as specific subsets of the group of patients with chronic hepatitis B, who may not have

fully developed cirrhosis or have regressed cirrhosis. After identification of aconcerning observation via abdominal ultrasound, use of dynamic contrastenhanced computed tomography (CT), magnetic resonance imaging (MRI), or biopsy is indicated for diagnosis. The use of alpha-fetoprotein (AFP) as a screening tool is discouraged, as it lacks sufficient sensitivity and specificity.

While hepatitis C-related cirrhosis is the dominant risk factor for patients in North America, patients in and immigrants from Africa and Asia demonstrate a higher incidence of HCC related to hepatitis B. Endemic hepatitis B infection is an important risk factor to recognize in patients as up to 20% of cases of HCC related to hepatitis B infection arise in patients with non-cirrhotic livers. Other risk factors for HCC arising in non-cirrhotic livers include exposure to Aspergillus-derived aflatoxin, heritable diseases such as alpha-1 antitrypsin deficiency and Wilson disease and metabolic diseases such as glycogen storage disease. Patients with these conditions should be screened for HCC regularly.

The common conditions of diabetes mellitus and obesity are increasingly recognized as risk factors for HCC. A component of the worldwide rising incidence of HCC may therefore be secondary to the similarly increasing worldwide prevalence of both diabetes and obesity. El-Serag, et al. note that additional research is necessary to better elucidate the mechanisms of disease development and the precise risk factors involved, which may include an abundance of visceral fat. Currently, patients with diabetes mellitus or obesity are not explicitly covered by extant screening guidelines, but consideration should be made in the future to include these groups in regular screening as the epidemiologic evidence mounts.

Non-alcoholic fatty liver disease (NAFLD) has similarly been increasing in incidence, but its association with the development of HCC has not been previously well established. Data from a Japanese cohort followed longitudinally suggest that development of HCC in patients with NAFLD without the presence of hepatic cirrhosis is rare.

Keywords: hepatocellular carcinoma, epidemiology

OP-20

PROGNOSTIC FACTORS AFFECTING THE PATIENT SURVIVAL AFTER PEPTIDE RECEPTOR RADIONUCLIDE THERAPY: DOES CHANGE IN 'SOMATOSTATIN RECEPTOR POSITIVE TOTAL LESION' HAS AN IMPACT?

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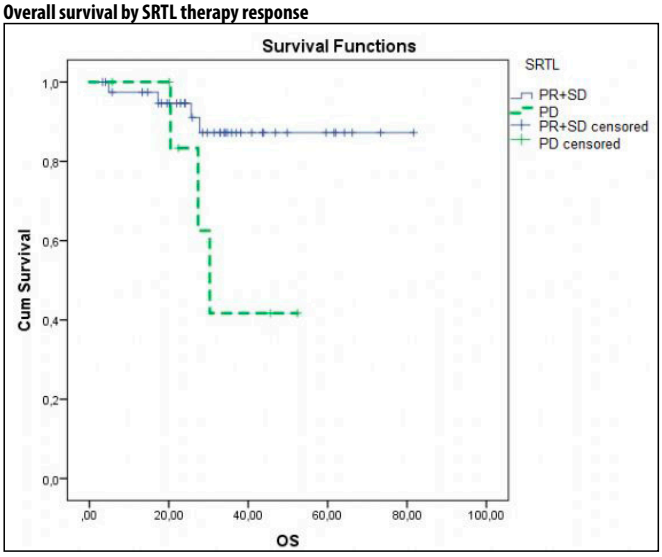
Neuroendocrine neoplasms express somatostatin receptors and these receptors are targeted both for Ga-68 DOTATATE PET and peptide receptor radionuclide therapy (PRRT). The therapy response evaluation to PRRT was done using both anatomic and functional imaging. In this study, tumor lesion glycolysis that is used for FDG PET was adapted to Ga-68 DOTATATE PET images as "Somatostatin Receptor positive Total Lesion" (SRTL). This study aimed to define tumor response using SRTL and to explore the impact of SRTL on other parameters for prediction of patient survival after PRRT. In this single center study, 49 patients' [Male: 25 (51%), Female: 24 (49%)] baseline and post-therapy Ga-68 DOTATATE PET images, CT and MRI's are reevaluated. The therapy response was defined using RECIST 1.1, PERCIST and STRL. The patients' hemogram, liver function and renal function tests at baseline and three months following the last cycle of PRRT were obtained. There was an increasing trend in Ki-67 index and a decreasing trend in overall survival (OS) with the worsening anatomic therapy response (P: 0.005 and p 0.013). The metabolic therapy response was associated significantly with OS (p:0.028) and tumor Ki-67 index (p: 0.020). A decreasing trend was observed going from partial response to progressive disease in both OS and baseline SUVmax (P: 0.02 and p: 0.003, respectively). On the follow-up 8 patients (16.3%) were deceased, and progression was reported in 18 (36.7%) patients after a mean of 28.1± 2.5 months. The median OS was 30.0 months [95% CI: 27.9-38.5]. The patients had better survival if they had less SRTL (< 1000) (p: 0.033) higher baseline SUVmax (p: 0.0029) however, neither lesion size nor SRTL showed any correlation with OS (p: 0.0767 and p: 0.700). Worse OS was observed if the patents had multiple sites of metastases (mean: 27.5 ± 19.7 months), both hepatic and extrahepatic (N: 25; 51%; p: 0.01). Univariate analysis showed that site of metastasis, hemoglobin, LDH, GGT, albumin, PERCIST and site of metastasis were significantly related to OS. On multivariate analysis, baseline hemoglobin levels (HR: 0.281 CI: 0.082-0.970) and baseline GGT levels (HR: 1.013, CI: 1.002-1.024) were significantly associated with OS (p: 0.001). When PFS was taken into account, in univariate analysis RECIST, PERCIST and SRTL, highest baseline SUVmax, patients' Ki-67 index and baseline hemoglobin were significant. On multivariate analysis only Ki-67 index (HR: 1.099 CI: 1.004-1.203) and baseline hemoglobin (HR: 0.555 CI: 0.367-0.840) were significantly related to PFS (p: 0.003). The retrospective nature and low patient number are the main limitations of this study. In conclusion, using SRTL for therapy response might identify a group of patients with better survival among SD of RECIST 1.1. Ki-67 proliferation index was a strong predictive factor for predicting response to PRRT. Baseline hemoglobin and GGT might be used as predictive factors for patient outcome after PRRT.

Keywords: Neuroendocrine neoplasms, Peptide receptor radionuclide therapy, therapy response

Overall survival by SRTL therapy response



SRTL: Somatostatin Receptor positive Total Lesion PD: Progresive diseas SD: Stable disease PR: Partial response

Table 1. Overall Survival (OS) and Ki-67 proliferation index

OS	*RECIST 1.1 (N,%) Months(mean ±SD)*	*PERCIST (N,%) Months(mean ±SD)*	*SRTL (N,%) Months(mean ±SD)*
Partial response	(4, 8.5) 47.1± 35.4	(23, 48.9) 37.3 ± 19.0	(34, 72.3) 38.5 ± 17.7
Stable disease	(38, 80.8) 34.5 ± 15.1	(10, 21.3) 29.2 ±12.3	(9, 19.1) 23.1± 11.4
Progressive disease	(7, 14.8) 14.4 ± 13.0	(9, 19.1) 21.0 ± 18.6	(6, 12.7) 13.4 ± 13.9
P	0.021*	0.028*	0.002*
Ki- 67 proliferation index	RECIST 1.1 (N,%) Months(mean ±SD)	PERCIST (N,%) Months(mean ±SD)	SRTL (N,%) Months(mean ±SD)
Partial response	(3, 7.8) 2.3 ± 0.6	(23, 54.8) 4.6 ± 4.6	(28, 73.7) 5.0 ± 5.3
Stable disease	(28, 73.8) 6.1 ± 6.1	(10, 23.8) 9.1 ± 9.1	(4, 10,5) 11.3 ± 6.3
Progressive disease	(7, 18.4) 14.0 ± 12.3	(9, 21.4) 12.9 ± 11.1	(6, 14.8) 15.5 ±12.8
P	0.036*	0.020*	0.005*

OP-21

RELATIONSHIP BETWEEN PROGNOSTIC NUTRITIONAL INDEX AND NEUTROPHIL LYMPHOCYTE RATIO WITH OVERALL SURVIVAL IN PATIENTS WITH METASTATIC COLORECTAL CANCER RECEIVING REGORAFENIB

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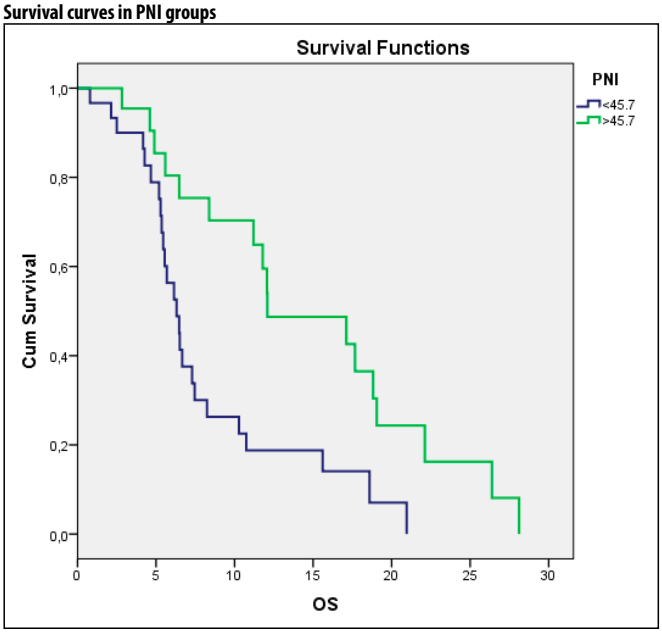
Aim: In this study we aimed to analyze the effect of prognostic nutritional index and neutrophile lymphocyte ratio on the disease control and overall survival in patients treated with regorafenib. Methods: Metastatic colorectal cancer patients who treated with regorafenib between 2016 and 2020 in a single center were evaluated retrospectively. ROC analysis was used for NLR's and PNI's optimum cut-off value. The relationship between OS with PNI and NLR was investigated.

Results: Fifty-two patient's data analyzed. Median age was 57 years, 22 (41.5%) of the patients were female. The optimal cut-off value of PNI for disease control was 45.7 according to ROC curve analysis. Median NLR value was accepted as 2.7. Median OS was 8.3 months. Patients who have high PNI value than 45.7 had longer OS (12.09 months vs 6.31 months HR: 0.37 95% CI: 0.19-0.73 P=0.003) and there was a tendency for longer OS with low NLR value then median (12.05 months vs. 6.14 months HR: 0.54 95% CI:0.29-1.23 P=0.057). Primary tumor resected patients had longer OS than non-resected patients (12.05 months vs. 6.30 months HR: 0.34 95% CI:0.17-0.66 P=0.001). In multivariate analysis high PNI value more than 45.7 (HR:0.40 95%CI:0.18-0.88 P:0.02) and resection of the primary tumor (HR:0.40 95%CI:0.21-0.80 P=0.01) was the only independent factor for longer OS

Conclusion: Metastatic colorectal cancer patients with high pretreatment PNI and primary tumor resected are more likely to have longer OS with regorafenib. PNI is more reliable index than NLR to predict response and OS in metastatic colorectal cancer patients treated with regorafenib.

Keywords: prognostic nutritional index, neutrophil lymphocyte ratio, disease control

Survival curves in PNI groups



OP-22

EFFICACY OF SECOND-LINE CHEMOTHERAPY IN METASTATIC GASTRIC CANCER; RETROSPECTIVE ANALYSIS

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Introduction: Gastric cancer is the fifth most common cancer worldwide. Second line chemotherapy for metastatic disease improves survival in selected patient population but the ideal treatment regimen is uncertain

Material and Method: In our study, we included metastatic gastric cancer patients treated in our clinic between 2008 and 2020, who received at least one line chemotherapy.

Results: 172 patients received first line chemotherapy. 73 (42.4%) of these received second line chemotherapy. Median age of patients who received second line chemotherapy were 59 (range: 22-86). Second line chemotherapy regimens were grouped as taxanes and fluoropyrimidine based regimens. 25 (34.2%) patients received taxanes; 48 (65.8%) patients received fluoropyrimidine based regimens. Most (32 of 48) of fluoropyrimidine based regimens were FOLFIRI.

Median Progression Free Survival (PFS) among all patients receiving second line chemotherapy was 4.04 months (95%CI 2.82-5.26). Median PFS of taxane receiving and fluoropyrimidine based regimen receiving patients were 2.89 months (95%CI 2.62-3.16) and 5.45 months (95%CI 3.61-7.30) respectively. There was a statistically significant difference between two chemotherapy groups favoring fluoropyrimidine based regimens (p=0.003). All patients receiving second line chemotherapy had a median Overall Survival (OS) of 7.52 months (95%CI 5.62-9.43). Taxane receiving subgroup had a median OS of 5.16 months (95%CI 3.07-7.25). Patients receiving fluoropyrimidine based regimens had a median OS of 8.02 months (95%CI 5.28-10.75).

There was no statistically significant difference (p=0.113). As all patients received a platine and fluoropyrimidine before second line chemotherapy, we excluded patients receiving FOLFOX and Capecitabine as asecond line regimen, and also we excluded patients receiving DCF (as neo/adjuvant or first line metastatic) before a second line taxane regimen, in order to deport any conflict. As a result of this elimination; when we compare patients receiving taxanes (22 patients) and FOLFIRI (32 patients); median PFS was 2.89 months and 4,3 months respectively. There was a statistically significant difference inbetween, favouring FOLFIRI regimen (p=0.025). Median OS of patients receiving taxanes and FOLFIRI were 5.78 months and 8.84 months respectively. There was no statistically significant difference inbetween (p=0.228).

Conclusion: Important proportion of patients receive second line chemotherapy in metastatic gastric cancer. In our study, despite of limited number of patients and the nature of a retrospectyive analysis; fluoropyrimidine based regimens showed superior PFS advantage to taxanes. Immune check point inhibitors and their combination with chemotherapy are now being developed in metastatic gastric cancer. So we will also see major changes in treatment sequencing in the future.

Keywords: gastric cancer, chemotherapy, second-line

OP-23

A RARE CASE WITH SECONDARY HEMOCHROMATOSIS AND VIRAL HEPATITIS ASSOCIATED WITH BLOOD TRANSFUSIONS DUE TO THALASSEMIA

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Background: Secondary hemochromatosis is not a rare condition in diseases requiring routine blood transfusions such as beta thalassemia major. Furthermore, patients in need of blood transfusion are at risk of viral hepatitis. If not recognized, cirrhosis and its complications like Hepatocellular Carcinoma (HCC) can be observed.

Case Presentation: A 36-year-old male consulted to our gastroenterology clinic with increased aminotransferase levels. The patient had a medical history of beta thalassemia major requiring routine blood transfusions since his early childhood and splenectomy. He was on iron chelating agent, deferasirox, for about 25 years. During his routine follow-ups by hematology department, 4-fold increase was observed in alanine (ALT) and aspartate (AST) aminotransferase levels. Cholestasis markers yielded within normal range. Ferritin value was 404.1 ng/mL (Range: 22 – 322). The patient had positive Hepatitis B surface antigen and HBV DNA value was 8.97x105 IU/mL. Entecavir 0.5mg treatment was initiated. Magnetic resonance imaging pointed a 5.5x4.5 cm mass in segment 3 of the liver compatible with HCC (Figure). Hepatectomy was performed and pathological examination yielded 5.1x4.2x4.1cm well-differentiated HCC with microvascular invasion. Non-tumoral liver showed cirrhotic features with mild iron deposit. No recurrence was observed in the remnant liver during follow-up.

Conclusion: Secondary hemochromatosis and viral hepatitis should be included in differential diagnosis of liver enzyme abnormalities in such patients requiring routine blood transfusion. It has been reported in many studies that the risk of HCC increases 20 to 200 times in hemochromatosis. In these patients, it is inevitable that the risk of HCC will increase further with the addition of HBV, another risk factor for HCC. We think that it would be beneficial to perform screening for viral hepatitis and HCC more frequently in this group of patients with an increased risk of HCC.

Keywords: Hepatocellular carcinoma, Hemochromatosis

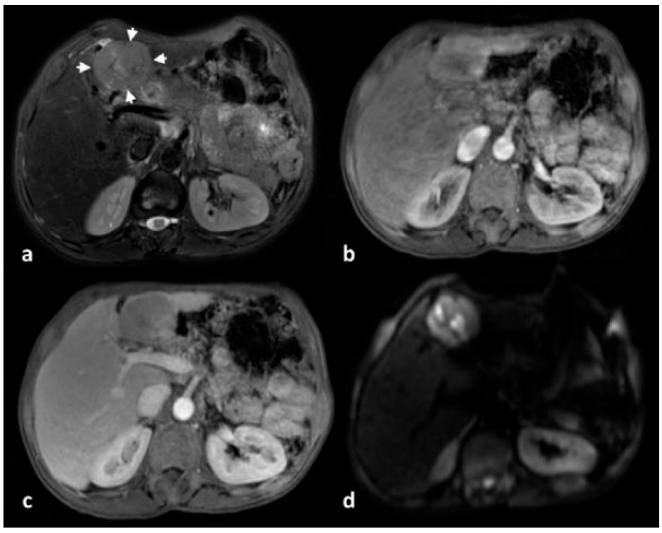

Figure 1. MRI images of the patient. (a) Mass lesion is seen on T2 weighted fat suppressed image (arrowheads). (b) Contrast enhancement is seen at late arterial phase image. (c) Wash-out of contrast in portal phase. (d) Intra-mass signal increase consistent with diffusion restriction on diffusion-weighted image

OP-24

HEPATITIS B REACTIVATION IN PATIENTS RECEIVING CHEMOTHERAPY AND THE IMPORTANCE OF ANTIVIRAL PROPHYLAXIS

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Purpose: In oncology practice, hepatitis B surface antigen (HBsAg) positivity is frequently detected in patients who are candidates for chemotherapy (CT) or radiotherapy. Hepatitis B reactivation may occur during immunsuppression caused by CT and immune reconstitution after CT. Here, we aimed to evaluate the risk factors for hepatitis B reactivation in our patients receiving CT and to evaluate the effectiveness of antiviral prophylaxis in preventing reactivation during CT.

Methods: Between January 2013 and December 2016 the records of 5458 patients who were examined at the chemotherapy unit were reviewed retrospectively. The study included 294 patients who were positive for HBsAg or Anti HBc IgG. Patients who died due to disease progression in the first month and whose first laboratory tests were in our hospital and started to be followed in another center were not included in the study.

Result: Among 294 patients included in our study, 108 (36.7%) were female and 186 (63.3%) were male. Solid organ malignancy was observed in 186 (63.3%) of the patients, and hematological malignancies were observed in 108 (36.7%) patients. The number of patients who received hepatitis B prophylaxis was 116. It was found that 6.1% (n:18) of the patients had hepatitis B reactivation. HBV reactivation developed in 8 of the patients using lamivudine and in 5 of the patients using tenofovir. HBV reactivation developed in 5 of the patients who did not re-

ceive prophylaxis. A statistically significant difference was found between HBV reactivation according to the antiviral treatment used ($p<0.05$). The rate of HBV reactivation in hematological malignancies was found to be statistically significantly higher than in solid organ malignancies ($p<0.001$). The incidence of HBV reactivation in patients who started antiviral treatment after CT was found to be statistically significantly higher ($p<0.05$). HbsAg positivity in patients with reactivation was found to be statistically significantly higher than in patients without reactivation ($p<0.05$). The rate of HBV reactivation in patients whose AST levels increased more than 5 times during the follow-up of the patients was found to be significantly higher than those without an increase ($p<0.05$). Similarly, ALT levels were found to be statistically significantly higher ($p<0.05$).

Conclusion: Patients with asymptomatic HBV carriers may develop HBV reactivation, which has a risk of serious mortality and morbidity, during the period when they are immunosuppressed due to CT. The development of viral resistance to lamivudine limits its prophylactic use, especially in long-term cancer treatment. For this reason, it is recommended to start entecavir or tenofovir in cancer patients. In people who will receive immunosuppressive treatment, HBsAg, anti-HBc IgG and antiHBs should be checked; If HBsAg and/or anti-HBc IgG positivity is detected, HBV DNA control is recommended.

Keywords: Hepatitis B, reactivation, prophylaxis

Table 1. HBV reactivation assessment according to AST and ALT increase

		HBV Reactivation	*HBV Reactivation*	*p*
		No	*Yes*	
AST increase	No	270	14	0.002**
AST increase	Yes	6	4	0.002**
ALT increase	No	272	14	0.001**
ALT increase	Yes	4	4	0.001**

Fisher's Excat Test **p<0.05

Table 2. Hepatitis B reactivation status

Hepatitis B Reactivation		*None*	*276 (93.8%)*
Hepatitis B Reactivation	Yes	Uses prophylaxis regularly	9 (3.1%)
Hepatitis B Reactivation	Yes	After the patient stops prophylaxis	2 (0.7%)
Hepatitis B Reactivation	Yes	HBsAg (-), Anti HBc IgG (+) and not received prophylaxis	5 (1.7%)
Hepatitis B Reactivation	Yes	Uses prophylaxis irregularly	2 (0.7%)

OP-25

THE CLINICAL AND PATHOLOGICAL FEATURES OF YOUNG ONSET COLORECTAL CANCER PATIENTS: A SINGLE CENTER EXPERIENCE

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Introduction: Colorectal cancer incidence increases with age. However, recent data indicated that the incidence of the disease had increased among patients under the age of 50. The purpose of this study was to assessed the clinical and pathological characteristics of patients with young-onset colorectal cancer.

Materials-Methods: The study included patients diagnosed with colorectal cancer who applied to the Yıldırım Beyazıt University, medical oncology department and whose data could be accessed. The study enrolled patients aged 50 years and younger. The clinical and pathological characteristics of the patients were retrospectively reviewed.

Results: A total of 82 patients enrolled in the study. There were 55 males (67.1%) and 27 females (32.9%). The median age was 44 (min-max:20-50). There were 3 (3.6%) patients between the ages of 20-30, 21 (25.6%) patients between the ages of 31-40, and 58 (70.7%) patients between the ages of 41-50. 32 patients had rectosigmoid and 50 patients had colon cancer. Right and left colon tumors were 28% (n=23) and 67.1% (n=55), respectively. At the time of diagnosis, the rates of the patients who were stage 1, 2, 3 and 4 were 13%, 32.5%, 42.9% and 11.7%, respectively. Surgery was performed in 70 patients. There were 3 patients whose tumors had signet cell histology and 12 patients (14.6%) had mucinous component. Intermediate- or high-grade carcinoma reported in 37 patients. Three (21.4%) of the 14 patients had k-ras or n-ras mutation. Among the patients whose laboratory values were available at the time of diagnosis, 33% of the patients had anemia (Hb<12) and 59.7% of the patients had elevated CEA (>2.5) level. 23 patients received neo/adjuvant radiotherapy and 48 patients received adjuvant chemotherapy. After median 22.6 months follow-up, 8 of the 16 patients who had stage IV disease (denovo or recurrent) died and the median OS was 28.6 months (9.7 - 47.6, 95% CI) for this patient group.

Discussion: According to the United States data, the number of cases of young-onset colorectal cancer has increased by 51% since 1994. As a result, it was suggested that screening tests may be performed for asymptomatic individuals in a younger age. The vast majority of symptomatic patients were diagnosed late. The increased incidence of the left colon tumors, signet ring and mucinous histology, and the moderately or poorly differentiated histology were consistent with the recent data about young-onset colorectal cancer.

Keywords: young-onset, colorectal, cancer

OP-26

CLINICAL OUTCOMES OF PALLIATIVE 3-D CONFORMAL EXTERNAL BEAM GASTRIC RADIOTHERAPY

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Introduction: Radiotherapy (RT) is the preferred treatment modality for advanced gastric cancer for palliation. There are few studies examining the effect of the RT on symptomatic relief and survival (1-3). Bleeding, obstruction and pain is the most common indication for palliative gastric RT. Our aim in this study is to evaluate the effect of RT and symptoms that have to be palliated on clinical outcomes in advanced gastric cancer.

Methods: All the medical records between 2013 and 2017 in Atatürk Training and Research Hospital Radiation Oncology Department, were reviewed retrospectively which patients were diagnosed with gastric cancer. Sixteen Metastatic patients who had been treated with palliative gastric RT were included in this study. 3-Dimensional Conformal Radiotherapy was used for all treatments. The target volume was the whole stomach. Statistical Analysis was performed using the SPSS software version 24.

Overall Survival was calculated from the first day of RT to death with Kaplan-Meier Survival estimation method. Log-Rank statistics were used for analyzing the effect of symptom type and RT dose on survival.

Results: In this study, the median age was 63 (12-85) and 13 (%81) patients were male. Median RT dose was 2250 cGy but 3000 cGy in 10 fractions was the most commonly used regimen. Only 7 (%43) patients were able to finish the planned palliative RT schedule. Median Survival was 2 months. All the patients were dead and any censored data did not exist. Overall survival (OS) was statistically better (p<=0.00) who was able to receive 2800 cGy Biological Equivalent Dose (BED) Radiation Dose (4 months vs 0.3 month) (Figure 1). As we examined the relationship between the purpose of palliative RT and survival, significantly worse results were found in patients irradiated for bleeding and obstructive symptoms rather than pain (13 months vs 0.7 month, p=0.03)(Figure 2). Overall survival rate was also found 5.7 months for patients with one metastatic site however this rate was 0.6 months for the patients that have more than one site (p<=0.01). We could not find any effect of previously applied chemotherapy regimens on survival which were used after the beginning of the palliative RT.

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Keywords: Gastric Cancer, Palliative radiotherapy

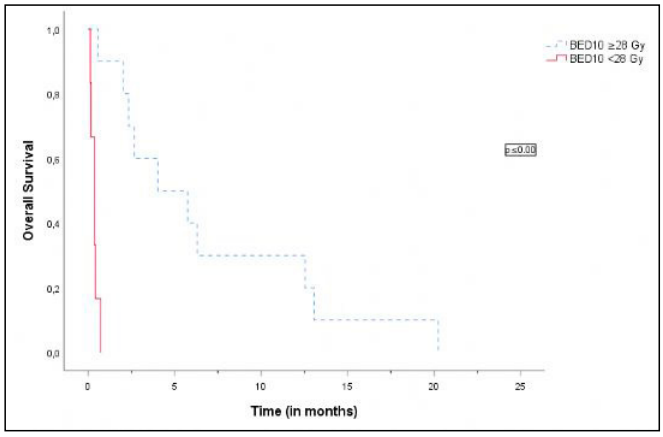

Figure 1. Kaplan-Meier Curves based on the Bioequivalent Radiotherapy Doses for α/β=10.

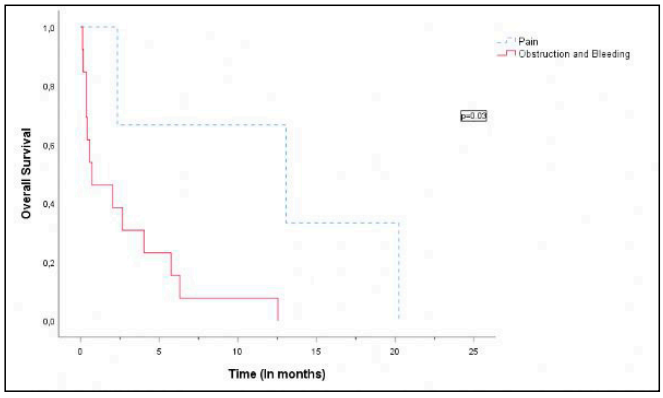

Figure 2. Kaplan-Meier Curves according to the symptoms.

OP-27

PSOAS MUSCLE LOSS IS A NEGATIVE PREDICTIVE FACTOR IN GASTRIC CANCER PATIENTS TREATED WITH CHEMORADIOTHERAPY AFTER SURGERY

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Ankara Yıldırım Beyazıt University

Introduction: Gastric cancer is the sixth most common cancer and the second cause of cancer death in 2018 Worldwide. Today, Total/Subtotal Gastrectomy and Lymph Node Dissection with neoadjuvant and/or adjuvant chemotherapy or adjuvant chemoradiotherapy (CRT) is standard care of therapy in locally advanced gastric cancer patients. The purpose of this study is to calculate the psoas muscle loss during gastric cancer treatment as an indicator of sarcopenia and to examine the effect of this change on progression-free and overall survival.

Methods: Patients who received adjuvant chemoradiotherapy (CRT) after surgery for gastric cancer were reviewed in Atatürk Training and Research Hospital between 2012-2019, a total of 28 patients whose computerized tomography images could be obtained and allowed evaluation just before surgery and after the end of CRT, were recruited into this study. Total psoas muscle area (PMA) defined with sum of the area of right and left psoas muscles as an indicator of muscle loss and sarcopenia in both pre-operative and post-adjuvant therapy CT scans. And then, the changes were recorded as delta psoas muscle area (Δ PMA), using [(PMA (cm2) after CRT- PMA (cm2) before CRT)/ PMA (cm2) after CRT] x100 formula. The variables compared with the Student-t-test, Fisher exact test and Wilcoxon rank-sum test between groups. Kaplan-Meier Test for survival estimation and log-rank test for survival comparisons were performed. The proportional PMA changes were dichotomized as >=20% or <20% according to the median proportional change %20. Statistical significance was considered at a p-value of <= 0.05.

Results: Totally 28 patient data were analyzed and the median age was found as 58 (range; 30, 78). No patient received neoadjuvant chemotherapy. One patient was staged as 1, and 9 and 18 patients were staged 2 and 3, respectively. Median preoperative PMA was calculated as 14.5 cm2 and was found as 11.8 cm2 after completion of surgery and adjuvant CRT. This change in PMA was statistically significant (p=.0) (Figure 1). All the patients showed a psoas muscle decrease and median proportional change was found as 20%. In 13 patients, this change was equal to or higher than the median change. After dichotomization regarding the median proportional change of 20%, the patients were classified into two groups as low and high Δ PMA. Three-year overall survival was found 65% and median survival has not been reached at the time of analysis. Three-year progression-free survival was calculated 62% for the entire cohort. Univariate analysis revealed that high delta groups are related with worse survival. Three-year overall survival rates were found 42% and 84% in the low and high delta group, respectively (p=0.05)(Figure 2). Three-year progression-free survival rates were also found lower in the high Δ group as 80% vs 38% (p=0.07).

Keywords: Gastric Cancer, Sarcopenia

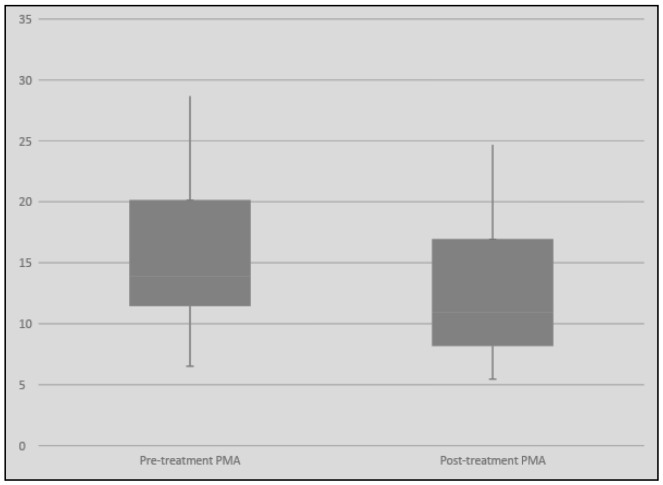

Figure 1. Pre-treatment and Post-treatment Psoas Muscle Area Changes (cm2, p<0.001) (PMA:Psoas Muscle Area)

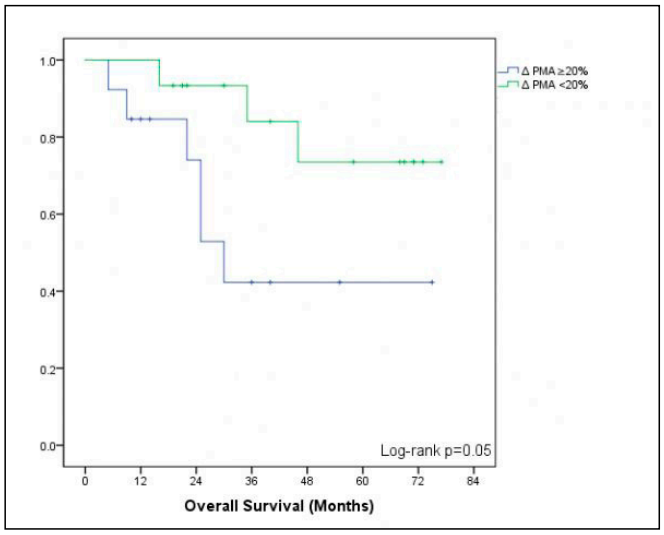

Figure 2. Kaplan-Meier survival curves for overall survival for high and low Δ Psoas Muscle Area (PMA) Groups

OP-28

LOG ODDS OF POSITIVE LYMPH NODES PREDICTS THE SURVIVAL IN RESECTABLE PANCREATIC ADENOCARCINOMA

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Introduction: Lymph node metastasis is an important prognostic factor in pancreatic adenocarcinoma. Log odds of positive lymph nodes (LODDS) is a novel prognostic indicator on lymph node status. In the last decade, some articles reporting that LODDS is effective in predicting prognosis in various cancer types, have been published. We aimed to evaluate the prognostic impact of LODDS for the patients with pancreatic adenocarcinoma who underwent R0 pancreaticoduodenectomy.

Material-Method: Standard pancreaticoduodenectomy and standard LN dissection (LN regions 3, 4, 5, 6, 8a, 12b1, 12b2, 12c, 13a, 13b,14a, 14b,17a, and 17b) were performed for all cases. Demographics of the patients, presentation symptoms, operation data, histopathological features of tumors, status of surgical margins, harvested total LN count, metastatic LN count, perioperative morbidity and mortality, and oncological follow up were analyzed from the prospectively collected database of our institution and pathology reports. Survival status and death dates of the patients were obtained from the national population registry system and the hospital registry system. LODDS was calculated as (number of metastatic lymph nodes + 0.5) / (number of total harvested nodes - metastatic lymph nodes + 0.5), 0.5 is added to both numerator and denominator to avoid singularity. LODDS subgroups were created as in previous studies according to LODDS value. LODDS1 (LODDS? ? 1.5), LODDS2 (?1.5 < LODDS? ? 1.0), LODDS3 (?1.0 <LODDS? ? 0.5), LODDS4 (LODDS > ?0.5).

Overall survival was calculated as elapsed time from the operation date to time of death. Kaplan - Meier (K-M) estimator was used to calculate the OS rates; Log - rank test was used to compare differences between survival curves.

Results: Fifty-five patients with a mean age of 64.85±11.3 (36-90 years) who underwent R0 pancreaticoduodenectomy between 2010 and 2017 were included. Of the patients, 39 (71%) were male and 16 (29%) were female. The mean number of harvested lymph nodes was 23.8±12.5, the mean number of metastatic lymph nodes was 2.53±2.6. The mean follow-up period and the mean survival time of the patients was 34.7±31.3 and 38.1±5.1 months respectively. 87% of the patients died during the follow-up period. Survival rates for 1, 3 and 5 years were 72%, 38%and 16%, respectively

The mean LODDS value was ?0.9727± 0.529. 12 patients (21.8%) were classified into LODDS 1, 13 patients (23.6%) into LODDS 2, 18 patients (32.7%) into LODDS 3, and 12 patients (21.8%) into LODDS 4 group.

LODDS subgroups showed correlation with overall survival, the mean survival were 65.1, 31.8, 32.0 and 20.6 months in LODDS subgroups 1, 2, 3 and 4, respectively (Log-rank; p = 0.033).

Conclusion: In parallel with the literature, our findings support that, analyzing the lymph nodes with LODDS method predicts the overall survival in patients with pancreatic adenocarcinoma.

Keywords: pancreas adenocarcinoma, LODDS, log odds

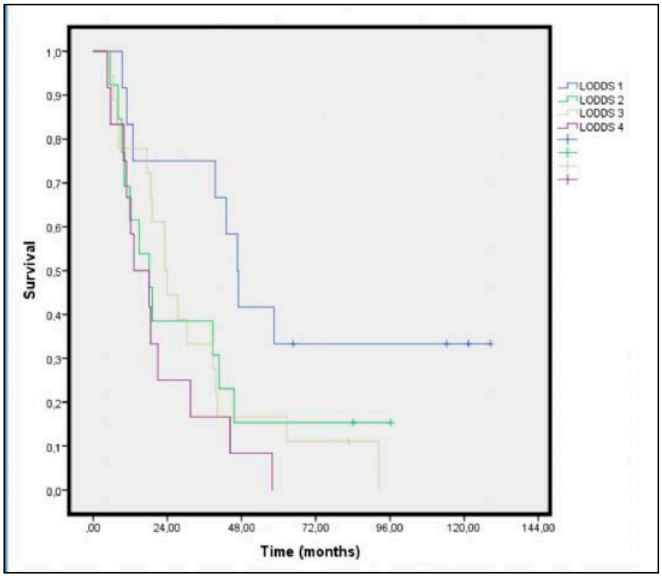

Figure 1. Kaplan-Meier curves for the LODDS groups
Kaplan-Meier curves for the pancreatic adenocarcinoma patients, stratified by LODDS subgroups; p = 0.033. *LODDS: Log odds of positive lymph nodes

OP-29

CHARACTERISTIC FEATURES AND PROGNOSTIC FACTORS IN GASTRIC CANCER PATIENTS WITH BONE METASTASIS

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Aim: We aimed to evaluate the incidence, clinicopathological features, prognostic factors and overall survival (OS) for gastric cancer patients with bone metastasis.

Patients and Methods: A total of 110 gastric cancer patients with bone metastasis were retrospectively analyzed. Clinicopathological and prognostic factors which were associated with OS were evaluated.

Results: Median age was 60 years (range: 19-84). The majority of patients were male (66.4 %). The main primary site of tumor was corpus (44.5%) and the dominant histopathological type was adenocarcinoma (71.8%). About two thirds of patients (n=78, 70.9%) had a favorable Eastern Cooperative Oncology Group (ECOG) performance status (PS) (ECOG PS) 0-1. There were 68 (61.8%) patients who were presented with synchronous metastasis, while 42 (38.2%) patients developed metachronous metastasis. Only 9 patients (8.2%) were presented with a solitary metastasis and ALP was tested as high in 54 (49%) patients. At the median follow-up time of 9.8 months (range: 2.3-123), median OS time was 6.2 months. In addition, median interval from the diagnosis to bone metastasis was 9.3 months. Univariate analysis revealed that ECOG PS >=2 (p =0.028), stage at diagnosis (p = 0.004), the time of metastasis (p=0.002), number of metastasis (p=0.012), the presence of extra-skeletal metastasis (p = 0.003), the use of zoledronic acid treatment (p=0.041), the presence of paliative chemotherapy after bone metastasis (p=0.035) and radiotherapy to bone metastasis (p=0.039) were found to be significant prognostic indicators for OS (Table 1). Moreover, in multivariate analysis, ECOG PS (HR:2.01, CI 95% 0.94-3.21, p=0.023), time of metastasis (HR:5.15, CI 95% 2.18-8.92, p<0.001), the use of paliative chemotherapy after bone metastasis (HR:0.39, CI 95% 0.16-0.94, p=0.036) and elevated ALP (HR:2.6, CI 95% 1.25-3.34, p=0.011) were significantly independent prognostic factors for OS (Table 2).

Conclusion: Our findings show that the presence of synchronous metastasis, the use of paliative chemotherapy and zoledronic acid after bone metastasis, and normol level of ALP are significantly associated with prolonged OS in gastric cancer patients with bone metastasis. More aggressive treatment strategies specific to these patients are needed in the future.

Keywords: gastric cancer; bone metastasis; overal survival

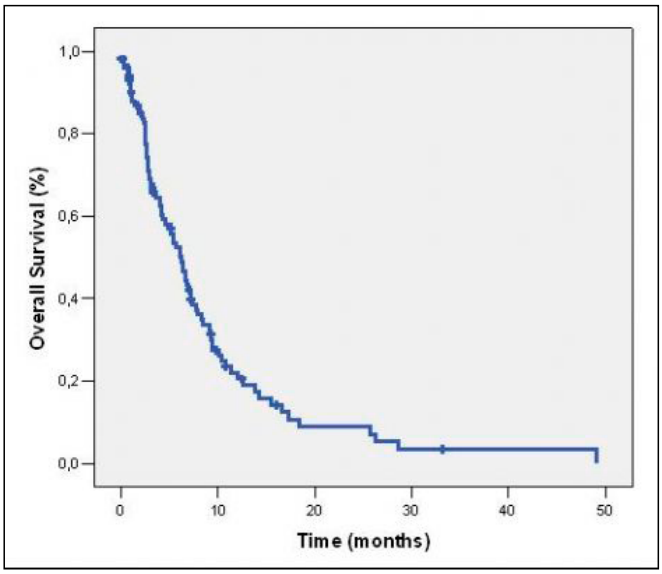

Figure 1. Overall Survival curve for gastric cancer patients with bone metastasis.

Table 1. Univariate analysis for overall survival in gastric cancer patients with bone metastasis

Characteristics	*Median OS (months)*	*p value*
<60	6.3	0.15
>60	6.0	
Gender		0.24
Female	4.0	
Male	6.3	
Site of primary tumor		0.15
Cardia	8.4	
Corpus	5.4	
Antrum	7.9	
Whole	6.4	
Histopathological type		0.14
Adenocarcinoma	6.6	
Signet ring-cell carcinoma	4.2	
Mixed type	2.9	
Other	6.2	
Stage at diagnosis		0.004
II	10.1	
III	6.6	
IV	4.0	
ECOG PS		0.028
0-1	7.1	
2-3	4.0	
Curative gastrectomy		0.12
Present	5.1	
Absent	6.4	
Time of metastasis		0.002
Synchronous	7.1	
Metachronous	3.3	
Number of metastasis		0.012
Solitary	6.3	
Multiple	3.2	
Presence of extra-bone metastasis		0.003
Present	3.4	
Absent	6.9	
Zoledronic acid treatment		0.041
Present	7.1	
Absent	3.3	
Paliative chemotherapy after bone metastasis		0.035
Present	6.6	
Absent	2.2	
Radiotherapy to bone metastasis		0.039
Present	6.9	
Absent	4.1	
ALP (IU/L)		0.07
Normal	7.7	
Elevated	3.2	

*ECOG PS; Eastern Cooperative Oncology Group performance status ALP; alkaline phosphatase

Table 2. Multivariate analysis for overall survival in gastric cancer patients with bone metastasis

Characteristics	*Wald*	*HR*	*p value*	*95% CI*
ECOG PS (0-1 vs 2-3)	3.30	2.01	0.023	0.94-3.21
Time of metastasis (Synchronous vs. Metachronous)	13.9	5.15	<0.001	2.18-8.92
Number of metastasis (Solitary vs. Multiple)	0.10	0.81	0.75	0.22-2.90
Presence of extra-bone metastasis	0.23	0.88	0.61	0.34-3.12
Zoledronic acid treatment	0.34	0.89	0.55	0.61-1.30
Paliative chemotherapy after bone metastasis	4.41	0.39	0.036	0.16-0.94
Radiotherapy to bone metastasis	0.12	1.13	0.72	0.55-2.32
ALP (IU/L) (Normal vs. Elevated)	6.52	2.6	0.011	1.25-3.34

*ECOG PS; Eastern Cooperative Oncology Group performance status. HR: Hazards ratio, CI: confidence interval, ALP: alkaline phosphatase

OP-30

THE IMPORTANCE OF VASCULAR INVASION IN AMPULLARY CARCINOMAS

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Background: Current CAP Cancer Protocole for ampullary carcinomas advices to give lymphatic and/or vascular invasion data in the pathology reports. But we believe these two invasion types might have different effects over prognosis.

Design: 102 consequent ampullary carcinomas were retrieved from the institutional archives all of which sampled with the same method, and tumor was totally sampled in every case. The lymphatic and vascular (venous or arterial) invasions were noted seperately. Multivariate analysis was done to compare every variable.

Results: Female/Male was 43/59. Mean age was 65 (39-84). Mean diameter was 2.3 cm. IAPN associated cases were 38.4%, ductal type was 49.5%, periampullary cases were 7.1%, and NOS type cases were 5.1% of the cohort. Lymphatic invasion was seen in 86.1%, and vascular invasion was seen in 62.4% cases. 47.5% cases were in early stages (Tis+T1+T2), and 52.5% cases were in advanced stages (T3). Lymph node metastasis was found in 69.6% of the cases (N1: 37%, N2: 32.6%). Vascular invasion was shown to be the only significant prognostic factor in multivariable survival analysis with HR: 2.77 (1.20-6.39, p=0.017), independent from the T and N stages.

Conclusion: Vascular and/or lymphatic invasions are currently reported together in the CAP protocoles. But as for the rest of the GI tract, they are seperately reported in our institution. This study proves that vascular invasion is an independent prognostic factor for ampullary carcinomas, and should be reported seperately.

Keywords: ampullary, vascular, invasion

OP-31

CLINICAL AND PATHOLOGICAL CHARACTERISTICS OF PROFICIENT AND DEFICIENT MISMATCH REPAIR COLON CANCERS

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Objective: Mismatch repair (MMR) status is a prognostic and predictive marker used in colon cancer. Its use in our routine practice has been increasing in recent years. In this study, we aimed to describe the clinicopathological features of patients with resected stage II-III proficient (pMMR) and deficient (dMMR) mismatch repair status colon cancer (CC).

Methods: Patients with stage II-III CC (n=415) diagnosed in Hacettepe University Medical Oncology department between 2008-2021 were included. Mismatch repair (MMR) status was evaluated in 182 patients (44%). Clinicopathological data were retrieved from medical records. Chi-square analysis was used to compare the ratios between dMMR and pMMR groups. A P-value <0.05 was considered significant.

Results: Overall, 25 patients (14%) had dMMR tumors (17% in stage II, 11 % in stage III). Clinicopathological features of the patients are shown in Table 1. MMR status was not evaluated in any patient before 2010; it was evaluated in 53% (n=100) of patients between 2011-2015 and in 77% (n=85) of patients between 2016-2021. Patients with dMMR tumors more frequently had right sided and poorly differentiated tumors, and lower rate of <12 lymph node removal. No statistical difference was found in the overall survival (5 year OS 75% vs 76% in pMMR vs dMMR group, p=0.9) while a trend towards better RFS was observed favoring dMMR group (5-year RFS 80% vs 96% in pMMR vs dMMR group, p=0.14).

Conclusions: Our findings were consistent with the pertinent literature, showing a higher rate of right sided and poorly differentiated tumors, lower rate of <12 lymph node removal and a trend towards better RFS in dMMR group.

Keywords: colon cancer, mismatch repair status

Table 1. Demographic and Clinicopathological Characteristics and Comparative Analyzes

	p MMR	d MMR	
N (%)	157 (86%)	25 (14%)	
Diagnosis Age Median (Min-max)	61.3 (20-86)	63.2 (19-81)	
			p
Sex Female Male	53 (34%) 104 (66%)	11 (44%) 14 (56%)	0.32
Tumor Location Right Left	55 (35%) 100 (65%)	22 (88%) 3 (12%)	<0.001
Histological Grade Well- Moderately differentiated Poor differentiated	46 (77%) 14 (23%)	2 (20%) 8 (80%)	0.001
T Stage T1-T2 T3 T4	5 (3%) 86 (56%) 62 (41%)	1 (4%) 11 (44%) 13 (52%)	0.52
N Stage N0 N1+N2	82 (52%) 75 (48%)	16 (64%) 9 (36%)	0.27
TNM Stage II III	80 (51%) 77 (49%)	16 (64%) 9 (36%)	0.22
LVI Present Absent	49 (54%) 42 (46%)	6 (35%) 11 (65%)	0.16
PNI Present Absent	40 (51%) 38 (49%)	4 (25%) 12 (75%)	0.055
Obstruction/Perforation Has any Neither	43 (27%) 114 (73%)	5 (21%) 19(79%)	0.5
Number of LN Removed <12 ≥12	30 (20%) 117 (80%)	0 (0%) 24 (100%)	0.009
NLR <5 ≥5	137 (88%) 19 (12%)	18 (75%) 6 (25%)	0.11
Chemotherapy in Stage 2 Received Not received	56 (73%) 21 (27%)	7 (47%) 8 (53%)	0.07
Chemotherapy in Stage 3 Received Not received	71 (95%) 4 (5%)	8 (100%) 0 (0%)	1

LVI: Lymphovascular Invasion, PNI: Perineural Invasion, LN: Lymph Nodes, NLR: Neutrophil lymphocyte ratio, dMMR: deficient mismatch repair, pMMR:proficient mismatch repair

Table 1. Demographic and Clinicopathological Characteristics and Comparative Analyzes

	RFS <12 Months	RFS ≥ 12 Months	
N (%)	17	52	
Diagnosis Age Median (Min-max)	64 (27-78)	63.3 (20-85)	
			p
Sex Female Male	11 (65%) 6 (35%)	20 (38%) 32 (62%)	0.06
Tumor Location Right Left	4 (23%) 13 (77%)	18 (36%) 32 (64%)	0.34
Histological Grade Well- Moderately differentiated Poor differentiated	11 (85%) 2 (15%)	31 (71%) 13 (29%)	0.47
T Stage T1-T2 T3 T4	- 9 (53%) 8 (47%)	- 23 (44%) 29 (56%)	0.53
N Stage N0 N1+N2	5 (29%) 12 (71%)	14 (27%) 38 (73%)	1
TNM Stage II III	5 (29%) 12 (71%)	14 (27%) 38 (73%)	1
LVI Present Absent	6 (75%) 2 (25%)	20 (77%) 6 (23%)	1
PNI Present Absent	5 (83%) 1 (17%)	17 (71%) 7 (29%)	1
Obstruction/Perforation Has any Neither	5 (31%) 11 (69%)	12 (23%) 40 (77%)	0.50
Number of LN Removed <12 ≥12	3 (18%) 14 (82%)	7 (14%) 42 (86%)	0.7
NLR <5 ≥5	12 (75%) 4 (25%)	47 (90%) 5 (10%)	0.2
Chemotherapy in Stage 2 Received Not received	4 (80%) 1 (20%)	9 (64%) 5 (36%)	1
Chemotherapy in Stage 3 Received Not received	10 (83%) 2 (17%)	36 (95%) 2 (5%)	0.24
MMR Status d MMR p MMR	0 (0%) 5 (100%)	1 (5%) 20 (95%)	1

RFS: Relapse-free survival, LVI: Lymphovascular Invasion, PNI: Perineural Invasion, LN: Lymph Nodes, NLR: Neutrophil lymphocyte ratio, dMMR: deficient mismatch repair, pMMR:proficient mismatch repair

OP-32

CLINICAL AND PATHOLOGICAL CHARACTERISTICS OF RESECTED COLON CANCER PATIENTS WITH EARLY RELAPSE

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Objective: Despite advances in colon cancer treatment, early relapses can be seen. The characteristics of patients with early relapse are not known exactly. In this study, we aimed to describe the clinicopathological features of patients with stage II-III colon cancer (CC) who relapsed within one year after diagnosis.

Methods: Patients with stage II-III CC (n=415) diagnosed in Hacettepe University Medical Oncology department between 2008-2021 were included. The patients were dichotomized at relapse interval (relapse-free survival (RFS) <12 months vs >=12 months). Clinicopathological data were retrieved from medical records. Chi-square analysis was used to compare the ratios between groups. A P-value <0.05 was considered significant.

Results: 5 year RFS was 81.5% in the whole group (90.7 % for stage II and 71.7% for stage III). Clinicopathological features of the patients are shown in Table 1. We did not find any significant difference in clinicopathological features of the patients with RFS <12 months vs >=12 months. Early relapses were numerically higher in female patients (vs. males) and in those with NLR >=5 (vs NLR <5), although not statistically significant.

Conclusions: Clinicopathological features of the patients did not predict early relapse in patients with resected stage II-III colon cancer. Molecular alterations and ctDNA may be potential predictors of early relapse.

Keywords: colon cancer, early relapse

OP-33

CLINICOPATHOLOGICAL AND SURVIVAL FEATURES OF NEUROENDOCRINE TUMORS: A RETROSPECTIVE ANALYSIS OF 153 CASES

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Objective: Neuroendocrine neoplasms (NENs) originates from the diffuse neuroendocrine cell system and represents a heterogeneous group of tumor that may occur at diverse disease sites and displays a wide range of biological and clinical behavior. NENs are divided into neuroendocrine tumors (NETs) and neuroendocrine carcinomas (NECs). Patients with NETs in the locoregional or oligometastatic disease stage can be cured by surgery. However, a significant group of patients require palliative treatment for irresectable or metastatic disease. In the present study, we performed a retrospective analysis of patients diagnosed with NET to evaluate clinicopathological characteristics, treatment and outcomes.

Material-Methods: Data from 153 patients diagnosed with NET who were treated and followed up at 3 tertiary care centres from November 2002 to June 2021 were retrospectively evaluated.

Results: Median age (IQR) was 53 (18-80). 85.6% of the patients had gastroenteropancreatic NET. The most common tumor origin was pancreas (32%), followed by stomach and small intestine. All cases were nonfunctional and most of them (80.4%)

presented with nonspecific symptoms. Metastatic disease was present at the time of diagnosis in 41.2% of patients. The primary tumor was resected in 95 (62.1%) patients and metastasectomy could be performed in 14.4% of the patients. Radiotherapy/SBRT was used in metastatic setting in seven patients and in adjuvant setting in 2 patients with concurrent platinum chemotherapy. Trans-catheter arterial chemo-embolization (TACE) was applied to 3 patients who had liver mateastasis. 78 patients received systemic therapy for metastatic disease. The most commonly used treatment regimens in first line setting were somatostatin analogs (SSA), platin/etoposide combination, and temozolamide/capecitabine combination, respectively. Concurrent peptide receptor radionuclide therapy (PRRT) with 177Lu-Dotatate was given to 19.5% of the patients who were receiving SSA. Second-line and third-line therapies (mainly SSA, lutetium, temozolamide/capecitabine combination, platin/etoposide combination and TKIs) were given in 33 and 12 of patients. Patients were followed up for a median of 22 months (range: 0.69-220.5 months). Overall survival during follow-up period is shown in figure 1. The estimated 1-year and 3-year survival rate was 89.8% and 74.4%, respectively. Median PFS were 8.4, 5.7 and 3.7 months respectively after first-, second- and third-line therapy. ECOG performans status of patients, tumor grade, lymph node and distant metastasis, liver metastasis, line of treatment in which lutetium is administered were correlated with overall survival.

Conclusion: The number of systemic treatment options and diagnostic tools for NETs has significantly improved in the last years. It is important to collect and share data worldwide on NETs, which were known to be rare but have been increasing in prevalence recently.

Keywords: neuroendocrine neoplasms, gastro-entero-pankreatic neuroendocrine tumors, clinicopathological characteristics

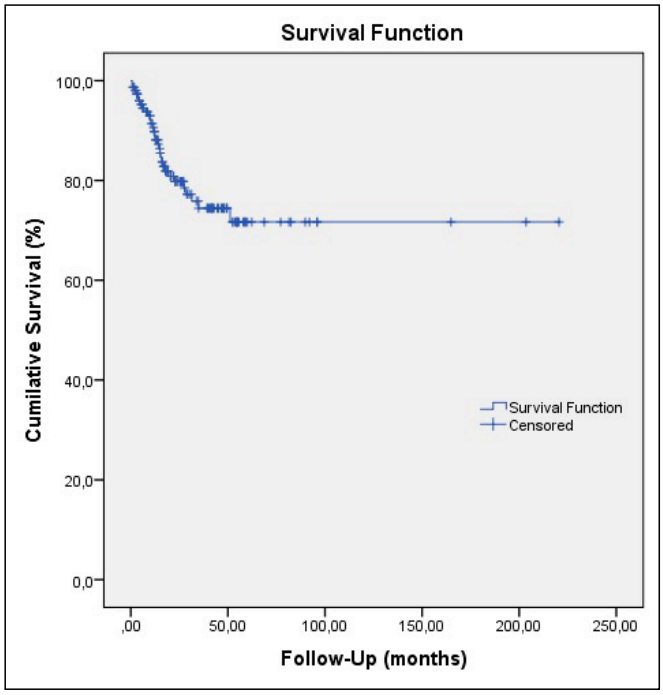

Figure 1. Overall survival curve during follow-up.

Table 1. Patient and tumor characteristics

	all	*Grade 1*	*Grade 2*	*Grade 3*	*p*
n (%)	153 (100.0)	47 (30.7)	80 (52.3)	26 (17.0)	<0.001
Age, Median (IQR)	53.0 (20.0)	50.0 (19.0)	52.5 (18.0)	60.5 (15.3)	0.053
Gender – Male, n (%)	86 (56.2)	26 (30.2)	45 (52.3)	15 (17.4)	0.981
primary location					
pancreas	49 (32.0)	10 (20.4)	30 (61.2)	9 (18.4)	
stomach	24 (15.7)	12 (50.0)	11 (45.8)	1 (4.2)	
small intestinal	23 (15.0)	7 (30.4)	13 (56.5)	3 (13.0)	
lung	11 (7.2)	5 (45.5)	1 (9.1)	5 (45.5)	
appendix	11 (7.2)	5 (45.5)	5 (45.5)	1 (9.1)	
rectum	7 (4.6)	1 (14.3)	6 (85.7)	0 (0.0)	
colon	6 (3.9)	2 (33.3)	3 (50.0)	1 (16.7)	
other	8 (5.2)	1 (12.5)	5 (62.5)	2 (25.0)	
unknown	14 (9.2)	4 (28.6)	6 (42.9)	4 (28.6)	
Stage, n (%)					<0.001
I	26 (17.0)	17 (65.4)	8 (30.8)	1 (3.8)	
II	30 (19.6)	11 (36.7)	17 (56.7)	2 (6.7)	
III	30 (19.6)	7 (23.3)	15 (50.0)	8 (26.7)	
IV	63 (41.2)	10 (15.9)	39 (61.9)	14 (22.2)	
unknown	4 (2.6)				
Metastatics Site, n (%)					
liver	64 (41.8)	11 (17.2)	38 (59.4)	15 (23.4)	0.006
lymph node	47 (30.7)	5 (10.6)	30 (63.8)	12 (25.5)	0.001
bone	13 (8.5)	2 (15.4)	8 (61.5)	3 (23.1)	0.404
lung	8 (5.2)	0 (0.0)	5 (62.5)	3 (37.5)	0.034
peritoneum	6 (3.9)	2 (33.3)	3 (50.0)	1 (16.7)	0.990
brain	1 (0.7)	0 (0.0)	1 (100.0)	0 (0.0)	0.521
other	4 (2.6)	2 (50.0)	1 (25.0)	1 (25.0)	0.528
Surgery, n (%)					
surgery of the primary tumor	95 (62.1)	37 (38.9)	47 (49.5)	11 (11.6)	0.006
metastasectomy	22 (14.4)	8 (36.4)	12 (54.5)	2 (9.1)	0.539

OP-34

THE IMPORTANCE OF TUMOR BUDDING EVALUATION IN AMPULLARY CARCINOMAS

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Introduction:: The presence of de-differentiated single cells or small clusters of up to five cells at the invasive front of colorectal carcinoma has been termed tumor budding. Current CAP Cancer Protocole for colorectal carcinomas advices to give tumor budding score data in the pathology reports. Tumor budding scores of ampullary carcinomas are not being reported according to the current CAP Cancer Protocole. But we believe that budding score might have different effects over prognosis in these tumors as well.

Materials-Methods:102 consequent ampullary carcinomas were retrieved from the institutional archives all of which sampled with the same method, and tumor was totally sampled in every case. Tumor budding scores were evaluated by selecting a ''hot spot'' chosen after review of all available slides with invasive tumor and noted seperately. The total number of budding was counted on H&E sections and in an area X20 field. Tumor budding scores were classified as low (0-4 buds), intermediate (5-9 buds) and high (10 or more buds).

Results: Female/Male was 43/59. Mean age was 65 (39-84). Mean diameter was 2.3 cm. IAPN associated cases were 38.4%, ductal type was 49.5%, periampullary cases were 7.1%, and NOS type cases were 5.1% of the cohort. Lymphatic invasion was seen in 86.1%, and vascular invasion was seen in 62.4% cases. 47.5% cases were in early stages (Tis+T1+T2), and 52.5% cases were in advanced stages (T3). Lymph node metastasis was found in 69.6% of the cases (N1: 37%, N2: 32.6%). Cases with high tumor budding score were %46 (n:47), cases with intermediate tumor budding score were %17.6 (n:18) and cases with low tumor budding score were %29.4 (n:30) of the cohort. Seven cases (%6.8) were classified as N/A due to inappropriate histology for evaluating tumor budding. (tumor cells in mucin pools, microinvasive carcinoma etc.) Lymphatic invasion was seen in all 47 cases with high budding score and lymph node metastasis was seen %82.9 (n=39) of 47 cases. Their median survival was 25 months. Lymph node metastasis was seen in %52 (n=25) of 48 cases with intermediate and low budding scores and their median survival was 43.5 months.

Conclusion: Tumor budding score allows risk stratification of colorectal cancer and is a valuable prognostic factor. High budding score is associated with an increased risk of lymph node metastasis, relaps and mortality. We think that the evaluation of tumor budding score may also be effective in determining the prognosis of ampullary carcinomas.

Keywords: tumor, budding, ampullary

Poster Presentations

PP-01

A CASE OF HER2-POSITIVE METASTATIC GASTRIC CANCER PRESENTING WITH HEPATIC FAILURE WITH COMPLETE RESPONSE TO PEMBROLIZUMAB WITH TRANSTUSUMAB PLUS CHEMOTHERAPY

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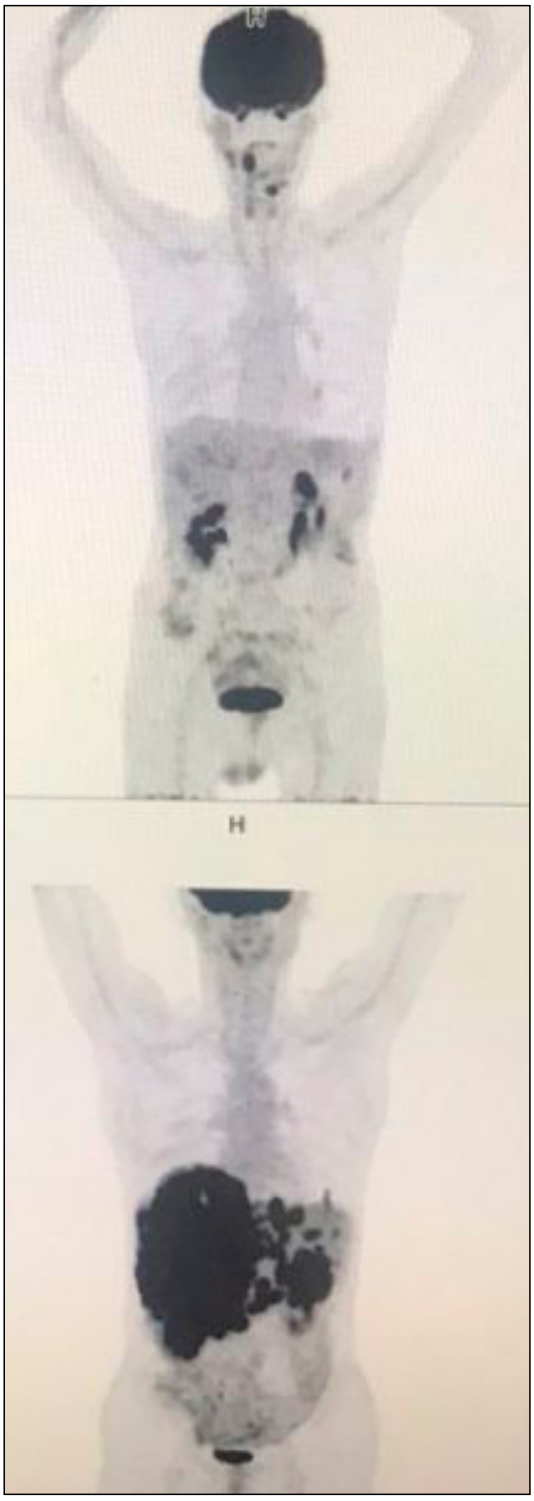
Introduction: Gastric cancer incidence is high in several countries, and management of advanced gastric cancer remains a challenge. Gastric cancer is a common disease worldwide that is often diagnosed at an advanced stage(1).The standard treatment for HER2 positive gastric cancer is transtusumab plus chemotherapy. Immunotherapy has started to be used in metastatic gastric cancer as in many areas. In the KEYNOTE-811 study, pembrolizumab significantly increased response rates compared to the standard arm(%74 versus %51). Based on this study, pembrolizumab was granted accelerated approval by the FDA on May 5, 2021 in HER2-positive gastric cancer. In our case, we aimed to present a patient with HER2-positive liver failure, to whom we achieved a complete response using pembrolizumab.

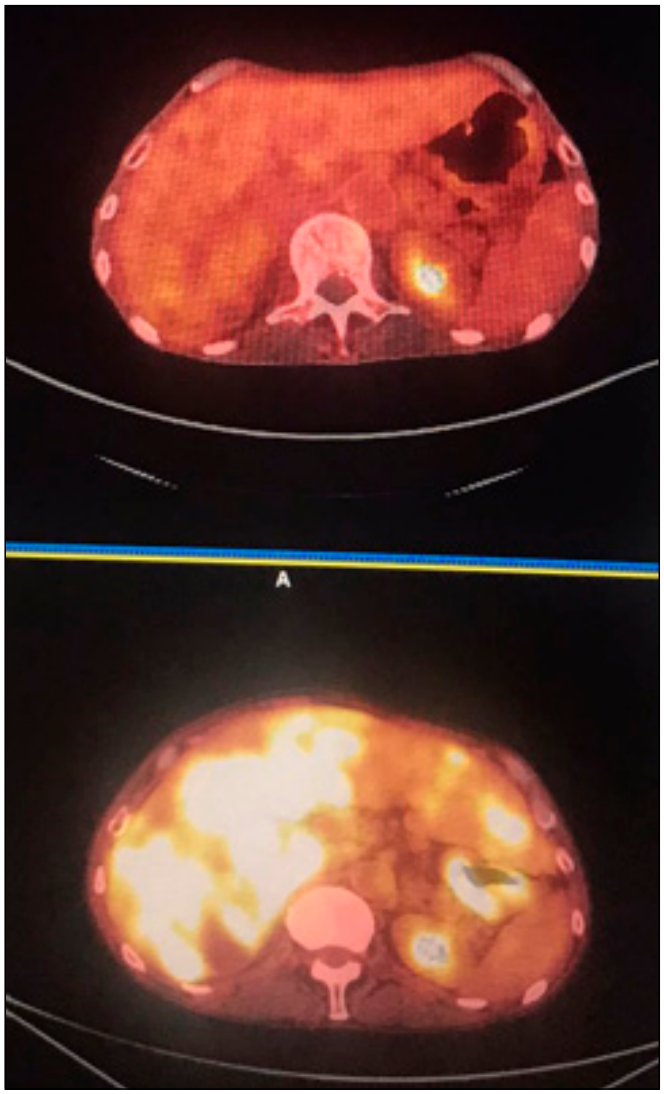
Case Presentation: A 66-year-old male patient. ECOG PS:3. He has no additional disease apart from a history of gastrectomy due to gastric ulcer 35 years ago. He applied to us with increasing fatigue, yellowing of the eyes, and swelling in the abdomen. Physical examination was unremarkable except hepatomegaly, jaundice and cachexia. In his gastroscopy, a mass was detected in the stomach. His biopsy was compatible with adenocarcinoma. HER2 was detected as 3+. Detected as AST:384U/L, ALT 222 U/L, INR:2.1, Total Billirubin 2.4mg/dl. In PET CT, multiple liver metastases that filled the liver almost completely and increased FDG uptake in the gastric region were detected. The patient was started on cisplatin plus herceptin with pembrolizumab. When liver enzymes regressed in the second cycle, flourouracil was added to the treatment. In the patient who was accepted as a clinical responder, the treatment was completed for a total of 6 cycles. After 6 cycles, the patient who had a complete response in PETCT was continued with pembrolizumab plus herceptin treatment. the patient was continued with pembrolizumab plus herceptin treatment. The patient has received 2 courses of maintenance pembrolizumab plus herceptin treatment in our clinic and is being followed up as ECOG PS:0.

Discussin: In the KEYNOTE 811 study, adding pembrolizumab to transtuzumab and chemotherapy increased complete response rates from 3.1% to 11.3%; the partial response from 48.8% to 63.1%. Pembrolizumab with transtuzumab and chemotherapy is a promising treatment in the first line treatment in HER2 positive metastatic gastric cancer because it increases complete response rates and durable response rates.

Keywords: metastatic gastric cancer, pemrolizumab, immunotherapy



PET-CT images



PET-CT images

PP-02

DESMOID TUMOR DEVELOPMENT AFTER PROPHYLACTIC COLECTOMY İN A PATIENT WITH FAP DIAGNOSIS

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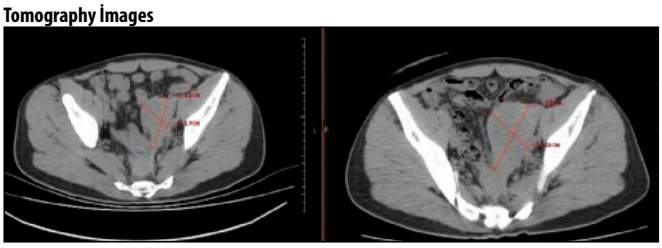
Introduction: Germline mutations in the adenomatous polyposis coli (APC) gene cause familial adenomatous polyposis (FAP). FAP is defined by the presence of hundreds to thousands of adenomas throughout the colorectum, and the risk of colorectal cancer is approximately 100 percent. Patients with FAP can develop a number of extracolonic symptoms in addition to polyposis coli. Colon cancer occurrence and death in FAP patients have decreased as a result of recent breakthroughs in screening and surgery, leaving desmoid tumors as the primary source of morbidity and mortality. In this case, we aimed to present our 42-year-old patient who underwent prophylactic total colectomy with the diagnosis of FAP and developed intra-abdominal desmoid tumor, which we took under control with sorafenib treatment.

Case Presentation: A 44-year-old male patient with no history of disease other than known FAP. He had a prophylactic total colectomy in November 2018. Due to abdominal pain in July 2020, multiple masses were detected in the abdomen on computed tomography. A biopsy was performed from the appropriate lesion. The biopsy result was compatible with desmoid tumor. Sorafenib 2*400 mg was started. After grade 2 hypertension developed in the patient, enalapril 5 mg was started. The treatment was stopped for 1 week in the patient with grade 3 hand-foot disease. The treatment was then continued with 2*200 mg. He was evaluated as a stable disease in November 2020 and the treatment was continued. In the response evaluation in April 2021, The patient was accepted as partial response. The patient is still being followed up in our clinic with a 14-month PFS.

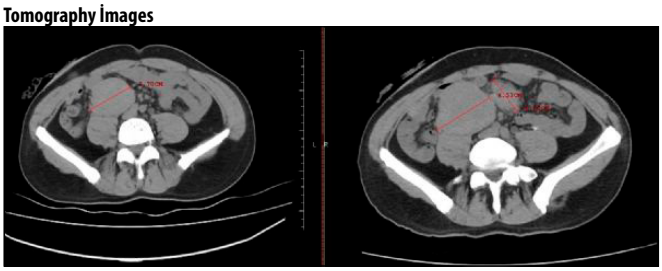
Discussion: Risk-reducing collectomies are performed to reduce the risk of colon cancer in FAP disease. Desmoid tumor can develop up to 21% after colectomy in patients with FAP. In one study, the median development time of desmoid tumor was found to be 26 months. This period was also 21 months in our patient. Desmoid tumor should be suspected in the masses that developed in the follow-up after colectomy and investigations should be performed in this direction.

Keywords: Desmoid tumor, Familial Adenomatous Polyposis, Sorafenib

Tomography İmages



Tomography İmages



PP-03

GASTRIC PRIMITIVE NEUROECTODERMAL TUMOR: A CASE REPORT

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Introduction: Ewing Sarcoma/primitive neuroectodermal tumors (ES/PNET) are malignant small round cell tumors mostly seen in the skeletal system.Extraosseous ES incidence is approximately 20% and seen in the paraspinal region, limbs, and retroperitoneum but rarely in the stomach.We report a primarily gastric PNET case, which is to our knowledge the 14th in the literature.

Case: A 84-year-old man presented with history of fatigue and black stool.The fecal occult blood test was positive, so he underwent gastroscopy which revealed mass in gastric antrum.Subtotal gastrectomy operation was performed.Histopathological exam-

ination revealed mass with the largest diameter of 9.5cm as ES/PNET, which invaded the entire layer of the gastric wall with positive lymph nodes at the lesser curvature(5/16) and greater curvature of the stomach(1/40); the tumor did not invade the anastomosis or omentum. Immunohistochemistry was positive for cytokeratin, synaptophysin, CD56 and vimentin.The tumor cells were 70% positive for Ki-67.The patient was thus diagnosed with primary gastric ES.After the operation, he did not receive any adjuvant treatment.On the 4th month, he referred to our clinic after the lump on the right cervical region grew.His ECOG scale of performance status was 1 and physical examination only revealed 4cm mobile swelling on the right side of the neck. Routine blood work indicated hemoglobin of 10 mg/dL. Other biochemical results were within the normal range.The positron emission tomography (PET) whole body scan done for staging showed a coeliac lymph node consistent with metastases, nodule at thyroid right lobe and nodular lesion at left lung upper pole without pathological uptake.Since the echocardiography done for cardiac monitorization didn't reveal any pathology, vincristine (1.5 mg/m2/day), doxorubicin (75 mg/m2/day), cyclophosphamide (1200 mg/m2/day) chemotherapy was planned.Meanwhile, next-generation sequencing (NGS) was ordered for targeted therapy option.He received 4 cycles of chemotherapy (btw 27.11-01.02.21) with peg filgrastim prophylaxis.In February 2021, the PET done for treatment response evaluation showed complete metabolic response.The result of the NGS revealed microsatellite stable disease with 3muts/mb, PDL-1 CPS:0 and NF1 mutation (loss exons 30-35).Trametinib was the suggested treatment in the patient's case. The patient received trametinib 2mg/day between February 2021 and April 2021. The follow-up PET and upper endoscopy did not reveal any pathology. The patient is tumor free for 9 months now.

Conclusion: There are 13 cases reported in the literature with gastric ES/PNET. The case reports show that gastric ES is more common in female, the clinical presentation is not specific, most tumors are larger than 5cm, and comprehensive treatment (combining surgery, radiotherapy, and chemotherapy) is often preferred. The benefit of NGS, by increasing the treatment options, is also seen in this rarely met cancer.

Keywords: gastric, PNET

PP-04

A LONG-TERM REMISSION IN SMALL BOWEL LYMPHOMA IN A KIDNEY TRANSPLANT CASE

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Introduction: The incidence of posttransplant lymphoproliferative disease (PTLD) may increase with immunosuppressive treatments used to prevent graft rejection after transplantation. This situation is considered a serious and potentially fatal complication of transplantation. The incidence of PTLD is mostly seen in the first year after transplantation, due to these intensive immunosuppressive treatments. However, the risk decreases by 80% after the first year. The development of lymphoproliferative disease is around 1% in post-transplant patients and may vary according to the type of transplanted allograft. The incidence of PTLD development in renal organ transplant patients is lower than in patients with heart, lung, and intestinal transplants. The degree of immunosuppression also plays a role in the pathogenesis of the disease. Directed cytotoxic T cell reduction for EBV-infected B cells is directly proportional to this and is also responsible for the pathogenesis. However, EBV seronegativity and immunosuppressive treatments are also risk factors. Among the drugs that determine the degree of immunosuppression, the risk of PTLD was twice as high in patients given tacrolimus when compared to cyclosporine, azathioprine, and steroids. Gastrointestinal system involvement is rare in PTLD, but intestinal involvement is much rarer.

Case: In this case report, we try to describe a long-term remission of small intestinal lymphoma after renal transplantation. A patient who underwent kidney transplantation in 2007 for FMF-related amyloidosis and was given tacrolimus, mycophenolate mofetil, deltacortil, and colchicine as immunosuppressive treatment developed malignant weight loss and vomiting in 2016. Diffuse large B-cell lymphoma was detected in the analysis. RCHOP was started for the patient, ileostomy and colostomy were opened due to obstruction, and RCHOP and RT were completed in March 2017. The ileostomy and colostomy were then closed. The patient, who came to regular outpatient follow-up, was last evaluated as in remission in September 2021.

Conclusion: Although PTLD is a serious condition with high mortality, the prognosis of gastrointestinal involvement may be better than expected, and long-term remission can be observed.

Keywords: Small bowel lymphoma, kidney transplantation

PP-05

HEPATITIS B REACTIVASTION AFTER FLOT REGIME IN GASTRIC CANCER PATIENTS

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Introduction: Gastric cancer is the second leading cause of cancer-related death. Adjuvant and/or neoadjuvant treatment improved survival. A German study showed the superiority of neoadjuvant docetaxel, oxaliplatin, fluorouracil, and leucovorin (the FLOT regimen) over epirubicin, cisplatin, and fluorouracil or capecitabine. Patients who have been infected with hepatitis B virüs (HBV) have risk for disease reactivation during immunosuppressive therapy. The rate of reactivation appears to be lower in patients treated for other solid tumors in contrast to hematological tumors.

In this paper we report a case who has HBV reactivation after FLOT regimen.

Case: A 32 years-old male patients presented to our hospital in weigh loss and fatigue In May 2020. He has no medical history. He has thickening in the stomach and suspicious 2 lymph nodes in perigastric region in contrast-enhanced tomography. Endoscopic examination revealed a malign ulcers in antrum. Pathology report documented a poorly differentiated adenocarcinoma.. Between June 2020 and August 2020 the patient received 4 cycles FLOT regimen with standard doses. Of note, his HBV status was unknown at the time of treatment initiation. In september 2020, he had a total gastrectomy operation with D2 dissection. Postoperative pathology report documented positive 7 malign lymph nodes of 24 total lymph nodes and close surgical margin. He received postoperative 4 cycles FLOT as planned. The patients evaluated in multidisciplinary team including radiation oncologist medical oncologist, radiology and pathology. The patient received radiotherapy because of close surgical margin. One week after radiotherapy he presented with poor oral intake, generalized fatigue, nausea. He had icterus in sclera. Liver function tests showed an elevated serum level of aspartate transami-

nase (AST) 893 U/L (normal, 10–40 U/L), alanine transaminase (ALT)), total bilirubin 4.2 mg/dL (normal, 0.1–1.2 mg/dL), and direct bilirubin 1.2 mg/dL (normal,0.1–0.7 mg/dL). Testing for HBV markers were positive for HBsAg, HBcAb IgG, hepatitis B e antibody, and HBV DNA level measured 12 million IU/mL consistent with HBV reactivation. HBsAb was negative. The patient was hospitalized for 15 days for dehydration because of poor oral intake. After the initiation of tenofovir 300 mg once daily, liver enzymes started to trend downward. Liver enzymes returned to normal range within a 8-week period, and HBV DNA was undetectable at 3 months.

Discussion: We presented a HBV reaction after new standard therapy, perioperative FLOT regimen. HBV reactivation is well-known some regimes that including high dose steroid and/or rituximab..But there are limited data available in other solid tumors. Guidelines recommend routine HbsAg test before chemotherapy in endemic regions. Because of FLOT is a new regime there is not any information about HBV reactivation at this regime

Keywords: FLOT, gastric cancer, hepatitis B

AUTHORS INDEX