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ABSTRACTS

SCIENTIFIC SECRETARIAT

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Dear Colleagues,

It is my great pleasure to invite you to attend the 9th International Gastrointestinal Cancers Conference (IGICC 2019) to be held 6– 8 December 2019 in Istanbul. This international gastrointestinal scientific event is endorsed by international societies such as UICC.

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

Considering the success of the first eight conferences 9.IGICC will be again an indispensable opportunity for education and update of the treatment of gastrointestinal cancers, providing a clear overview for treatment, with the focus on individualized, multidisciplinary approach with the participation of broad range of experts.

I cordially invite you to participate in this meeting by attending and submitting your scientific work as an abstract to be considered for presentation in IGICC 2019.

We are looking forward to welcoming you to Istanbul.

Prof. Suayib Yalcin
Conference President

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Presentations

IDENTIFYING AND MANAGEMENT OF CHEMOTHERAPY ASSOCIATED HEPATOTOXICITY

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In oncology practice, the most commonly used and most effective treatment modalities are cytotoxic drugs. Both in upper, lower gastrointestinal (GI) system and also in hepatobiliary system malignancies, we use cytotoxic drugs. Although, we try to avoid and prevent chemotherapy related hepatotoxicity, in most of the time, we care patients with low reservoir, due to metastatic lesions, primary disease involvement in liver and underlying chronic liver diseases. Here, a brief summary of chemotherapy associated hepatotoxicity(CAH) will be discussed and specific drugs used in GI malignancies will be summarized.

There are basically 2 ways of hepatotoxicity while under treatment. Direct chemotherapy-induced hepatotoxicity and potentiation of pre-existing liver disease (chronic liver disease, viral hepatitis, etc…). The mechanism of hepatotoxicity may be direct or by idiosyncratic. The idiosyncratic mechanism can be immune-mediated or metabolic. The idiosyncratic toxicity is not dose- dependent and it can't be predicted. The hepatotoxicity present with 2 clinical scenarios. Hepatocellular injury and cholestatic injury. The clinical and laboratory differentiation of the are summarized below.

1- Hepatocellular injury (hepatitis):
   - Disproportionate elevation in the serum aminotransferases compared with the alkaline phosphatase
   - Serum bilirubin may be elevated
   - Tests of synthetic function may be abnormal
2- Cholestatic injury (cholestasis):
   - Disproportionate elevation in the alkaline phosphatase compared with the serum aminotransferases
   - Serum bilirubin may be elevated
   - Tests of synthetic function may be abnormal

Clinical presentation and diagnosis:

The clinical persentation of patients may vary. Although the patient can be asymptomatic, malaise, Low-grade fever, anorexia, nausea/vomiting, right upper quadrant pain, jaundice, acholic stools/dark urine, pruritus are the most symptoms of chemo related hepatotoxicity. In severe cases, symptoms of coagulopathy and hepatic encephalopathy may be detected.

The diagnosis of CAH is generally challenging. The first and crucial step is clinical suspicion. There is no specific test to conclude a diagnosis of CAH. The clinical clues that should make clinicians think about CAH are;

1. Liver injury after chemotherapy
2. The exclusion of underlying liver disease
3. Improvement in the liver injury after cessation of chemotherapy
4. The Rapid and severe recurrence after re-challenge (however, challenge is not advised

Liver biopsy can help clinicians to differentiate the type of injury (hepatocellular or cholestatic injury). In addition, the other causes of liver disease can be excluded. While evaluating patient for CAH, we should exclude some other possible causes of hepatic dysfunction. Progressive tumour, coexisting hepatic disease, adverse effects of other drugs, over the counter medications, complementary/alternative medicine (CAM) should be asked and evaluated. We should insistently ask about the usage of complementary medicines. In literature, the incidence of CAM usage is 40% in cancer patients and 41% of patients do not spontaneously mention about their CAM usages.

Management

After diagnosis or clinical suspicion of CAH, drug discontinuation is the best effective treatment strategy. However, the risks and benefits and availability of alternative treatments should be discussed with the patient. Supportive measures should be held to support the patient during the CAH. In cases of hypersensitivity reactions who have progressive cholestasis despite drug withdrawal or biopsy features of autoimmune hepatitis, may be treated with glucocorticoids. After improvement of hepatic dysfunctions, the decision of re-challenging the patient with the same drug should be made on a case by case basis. In addition, the individual agent, the severity of the toxicity and the availability of alternative therapies should be evaluated and discussed with the patients.

Drug specific hepatotoxicity

There are numerous cytotoxic drugs used in upper, lower GI malignancies and hepatobiliary cancers. Most of the data in literature has focused on the metastasectomy patients who had been treated with preoperative chemo-

therapy. Because of the confirmed overall survival benefit of metastasectomy in metastatic colorectal cancers, there are lots of studies in terms of colorectal cancer series. Oxaliplatin related sinusoidal obstruction syndrome (SOS) amd irinotecan induced hepatosteatosis are the well-defined hepatotoxicity in literature.

Sinusoidal obstruction syndrome (SOS) as previously known as veno-occlusive disease was initially reported in transplant patients. Oxaliplatin related SOS was detected in metastasectomy specimens. Oxaliplatin causes injury to the hepatic sinusoidal endothelial cells and hepatocytes, leading to activation of the coagulation cascade with intrasinusoidal clotting and platelet consumption. At last, sinusoidal obstruction and hepatocellular damage are observed. In histopathological evaluation; ainusoidal congestion and dilatation, disruption of the sinusoidal membrane, collagen deposition within the perisinusoidal space and in long term sinusoidal fibrosis are detected. In patients treated with FOLFOX regimen in preoperative setting, striking sinusoidal alterations were reported in 74% of oxaliplatin treated patients. In the postoperative period SOS may causes tender hepatomegaly, fluid retention and elevated bilirubin levels. But, it is very difficult to differentiate it from the postoperative changes of liver. The clinical impact of Oxaliplatin related SOS has not been well defined, but there are case reports of Oxaliplatin related SOS mimicking tumor progression in liver. So, we should be cautious while evaluating new lesions of liver.

Irinotecan causes fatty acid B oxidation leading to formation of reactive oxygen species. This further leads to oxidation in cellular membrane and cellular death. In long term, activation of satellate cells leads to fibrosis. Hepatosteatosis was reported in %27 of cases treated with irinotecan based regimens. The analysis of the clinical outcomes of hepatosteatosis showed that it is associate with 3 fold increased risk of post-operative complications. In addition, the patients with steatohepatitis had an increased 90-day mortality (14.7% v 1.6%, P .001; OR 10.5; 95% CI, 2.0 to 36.4).

There are numerous data about other cytotoxic drugs' relation with hepatoxicity. Taxanes, platines and gemcitabine have been associated with mild increases in aminotransferases and bilirubin levels. In addition, sorafenib has been claimed to cause hepatitits. It is characterized by a hepatocellular pattern of liver damage. Uncommon elevations in the international normalized ratio (INR) or hyperbilirubinemia may occur during sorafenib treatment.

In GI malignancies, diagnosis of chemo- related hepatotoxicity is challenging. While evaluating a patient, we should assess and ask about other drugs, underlying liver disease and complementary and alternative medicine usage should be insistently evaluated. Drug discontinuation and supportive measures are the mainstay treatment approach.

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CLASSIFICATION SYSTEMS FOR HCC

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Hepatocellular cancer (HCC) is the sixth most common cancer globally and the third most common cause of cancer-related mortality[1]. Almost 75% to 80% of cases of primary liver cancer are attributable to cirrhosis, and an estimated annual incidence of HCC in cirrhotic patients is 1.6%[2].

Staging plays the most important role to manage HCC, however, there is no staging system that used globally. The Child-Pugh scoring system is the most commonly used system to evaluate liver function which emerged in 1973[3]. However, in addition to three objective parameters, the Child-Pugh scoring system has two subjective parameters such as ascites and encephalopathy. These two subjective parameter evaluations are subject to physician interpretation which may differ from each other and they may have been affected by medications. Therefore, the Child-Pugh scoring system has been questioning and many attempts have been done to improve its accuracy. One of these attempts was done by Kaseb et. al. in 2014 which based on IGF-1 integration to the Child-Pugh system instead of ascites and encephalopathy as a new scoring system called IGF-CPS scoring system.[4]. They have reported better predictive accuracy with the new system and validated by different patients cohorts[5].

Recently, the ALBI scoring system has been developed by Japanese researchers in cirrhotic patients, especially for Child Pugh A class patients. Because, studies reported that not all Child-Pugh class patients are the same, and this heterogeneity may have an impact on survival findings [6]. Therefore, refinement of liver function assessment with ALBI model might permit retrospective assessment of sorafenib efficacy and survival in these subgroups, and determine the most appropriate group for the treatment. The ALBI scoring system has been demonstrated more accurate results than Child Pugh system especially in CPS class A patient. In this context, the ALBI scoring system has been recommended to be used to discriminate the subgroup of Child-Pugh class A patients.

Since 1985, many classification systems have been announced, and around 18 HCC staging systems have been used globally. These systems categorized by Vauthey et al. at the American Hepato-Pancreato-Biliary Association (AHPBA) consensus conference as clinical, pathological, and transplant staging systems [7]. Clinical systems included Okuda, IHPBA (International Hepato-Pancreato-Biliary Association), CLIP, BCLC, CUPI (Chinese University Prognostic Index), American Liver Tumor Study Group-modified Tumor-Node-Metastasis classification (ALTSG), Groupe d'Etude et de Traitement du Carcinome Hepatocellulaire (GRETCH). Similarly, pathological category included the American Joint Committee on Cancer (AJCC), TNM, Liver Cancer Study Group of Japan (LCSGJ), Japanese integrated system (JIS), TNM Early HCC prognostic score. However, there is no globally accepted staging system that allows for a comparison of current management protocols among heterogeneous populations.

The TNM staging system has been revised by AJCC in 2017 and had some changes in the new version of it. In the last version of TNM, T1 has been subdivided into two subcategories as T1a (solitary tumors ≤2 cm), and T1b (solitary tumors without vascular invasion >2 cm), T3 categorized as T3, and T3b categorized as T4[8]. However, the TNM staging system doesn't take into account the patient's cirrhotic status which is the most common disease that HCC patients have.

Okuda is the first system that takes both liver function and tumor extension into account for prognostic assessment in HCC. Okuda is a prognostic evaluation of cirrhotic patients with HCC that includes tumor size and three measures of the severity of cirrhosis like the amount of ascites, serum albumin, and bilirubin levels. However, Okuda system has some limitations that include no information about whether the tumor is unifocal, multifocal, or diffuse, and there is a vascular invasion, and the tumor is less than 2 cm in diameter which factors have prognostic significance in early phase HCC[9].

The Cancer of the Liver Italian Program (CLIP) is a new classification system that includes the Child-Pugh score, the volume of tumor involvement, Alpha-Fetoprotein, and portal vein thrombosis. The main idea of the development of the CLIP classification system is based on to evaluate residual liver function and tumor extension. The CLIP score was derived from a retrospective study that included 435 Italian patients with HCC, and categorized patients into seven subgroups. The CLIP staging system has been validated in two different countries and their HCC patient population. These studies have been reported that CLIP staging system was better than Okuda and the TNM[10,11]. However, the CLIP staging system has some limitations that include having difficulties to apply for patents with early-stage HCC, because not well discriminate CLIP 2 and 3. Additionally, the CLIP scoring system is not able to discriminate score 4- to 6-patient groups, and there

are no significant differences between CLIP-4, -5, and -6 patient populations. On the other hand, the CLIP score provides almost every treatment option for all subgroups, so this score is not helpful to make a treatment decision.

The Barcelona Clinic Liver Cancer (BCLC) staging classification comprises four stages that are based on the extent of the primary lesion, performance status, vascular invasion, and extrahepatic spread[12]. The BCLC staging system comprises 4 stages of HCC patients that includes early-stage (A) includes patients with asymptomatic early tumors, intermediate stage (B) comprises patients with asymptomatic multinodular HCC, advanced stage (C) includes patients with symptomatic tumors and/or an invasive tumoral pattern (vascular invasion/extrahepatic spread), and end-stage disease (D) contain patients with extremely grim prognosis. The treatment recommendations for HCC patients in the BCLC are for stage A are resection, transplantation or percutaneous treatments, for stage B and C are palliative treatments/new agent as systemic treatments, and for stage D (Okuda stage III or PST 3-4) is just symptomatic treatment (BSC). The limitation of the BCLC staging system include that not being a prognostic evaluation, just predictive, and the role of RFA and TARE not clear in the staging system, and AFP is not part of the BCLC staging system which can serve as a surrogate for occult vascular invasion, distant metastases, or aggressive tumor biology.

Other classification systems are the Alberta classification, the Hong Kong Liver Cancer classification (HKLC), the Chinese University Prognostic Index (CUPI), and the Italian Liver Cancer (ITA.LI.CA)[13-16]. These classification systems have common parameters with the BCLC, and they need to be validated and used in different subgroups of HCC patients.

In conclusion, there is no globally accepted staging system that allows for a comparison of current management protocols among heterogeneous populations. The BCLC staging system provided reasonable guidelines to manage patients with advanced-stage HCC. The AASLD and the EASL have accepted the BCLC as a standard staging system, and the AJCC/UICC TNM staging system is useful in patients undergoing hepatic resection or liver transplantation.

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Oral Presentations

OP-001

DEFINITIVE CHEMORADIOTHERAPY IN ESOPHAGEAL SQUAMOUS CELL CANCER: A SINGLE CENTER EXPERIENCE

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Objectives: Trimodal treatment consisting of chemoradiotherapy (CRT) and surgery is the standard approach for esophageal cancer. However most patients are unsuitable for surgery at the time of diagnosis thus receive definitive CRT. The aim of this study is to evaluate our treatment outcomes in patients who underwent definitive CRT for the diagnosis of squamous cell esophageal cancer (SCC).

Materials and Methods: Medical records of 39 patients with the diagnosis of locally advanced esophageal SCC treated between May 2002 and January 2018 were retrospectively evaluated.

Patients received median 50.4 Gy (range, 45-70 Gy) with concomitant chemotherapy (CT). Patients treated with either conventional or conformal techniques were included for analyses.

Overall survival (OS), local-regional control (LRC), and the factors affecting treatment outcomes were examined. Statistical analyses were performed using SPSS 21.0 software (SPSS, Chicago, IL), and $p < 0.05$ was considered statistically significant.

Results: Patient and treatment characteristics are presented in **Table-1**. Seventeen of the patients were female (44%), and the median age was 63 (range, 3-73 years). Neoadjuvant CT was applied to 13 patients (33%) before CRT. Taxol, Cisplatin and 5FU (TCF) was the most common neoadjuvant CT and CF was the most common concomitant CT (30%). Median survival was 130 months, and the 2 and 5 year OS rates were 73% and 57%, respectively. The median LRC was 33 months, and LRC at 2 and 5 years was 88% and 71%, respectively. Patients with tumors located in the proximal esophagus had significantly better OS ($p = 0.02$) and LRC ($p = 0.002$). The median SUVmax value for the tumor was 12.8 (3-27) in 12 patients who underwent PET-CT before treatment. Gender, age, tumor size, nodal involvement, tumor SUVmax value, and radiotherapy dose did not affect OS and LRC.

The median neutrophil and lymphocyte count ratio (NLR) at the time of diagnosis was 3.22 (range, 0.56-15.6). OS was 28.5 months in cases with NLR values less than or equal to 3.22, and 131 months in cases N/L greater than 3.22 ($p = 0.037$) **Figure 1**. LRC was 20.6 months in cases with N / L ratio less than or equal to 3.22, and 128 months in cases NLR greater than 3.22 ($p = 0.46$). The difference was clinically significant. Treatment was tolerated well in general, and there was no grade 3 or more acute and late toxicity.

Conclusion: Definitive CRT is an effective treatment for esophageal SCC. OS and LRC are affected by tumor location and NLR at the time of diagnosis.

Keywords: Esophagus cancer, Chemoradiaton, Neutrophil lymphocyte ratio

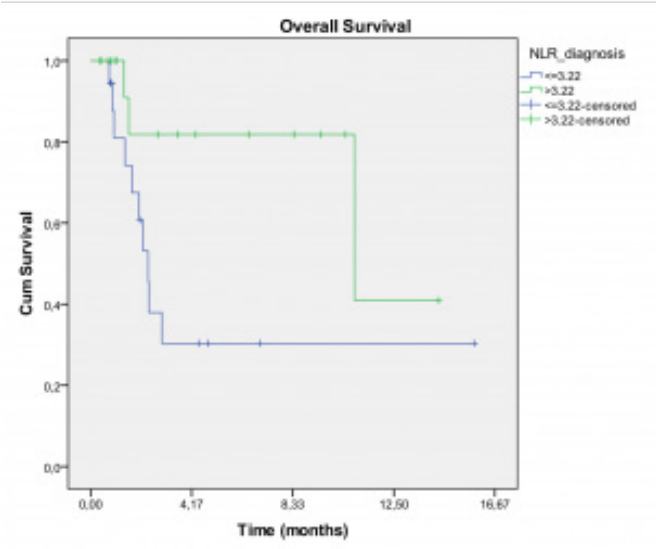

Figure 1. Overall survival

Table 1. Patient and treatment characteristics

	Patient number (%)
Tumor size (median-mm)	50 mm (15-100 mm)
Tumor location	
Proximal 1/3	21 (54%)
Medial 1/3	13 (33%)
Distal 1/3	5 (13%)
Lymph node metastasis	
No	20 (51%)
Yes	19 (49%)
RT technique	
2D	14 (36%)
3D	6 (15%)
IMRT	19 (49%)
RT dose (median)	50,4 Gy (45-70 Gy)

OP-002

NON-OPERATIVE MANAGEMENT OF RECTAL CANCER: HACETTEPE UNIVERSITY EXPERIENCE

Burak Tilki[1], Pervin Hürmüz[1], Mustafa Cengiz[1], Ferah Yıldız[1], Faruk Zorlu[1], Gökhan Özyiğit[1], Şuayib Yalçın[1], Fadıl Akyol[1]

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Purpose: Multimodal treatment including neoadjuvant radiotherapy (RT) or chemoradiotherapy (CRT) followed by surgical resection is the standard treatment for locally advanced rectal adenocarcinoma[1]. However there are patients who refused to go surgery or not suitable for surgery due to medical comorbidites.[2] The aim of this study is to evaluate treatment results in rectal cancer patients treated with RT ±chemotherapy (ChT) and did not receive surgery.

Material and Methods: Medical records of patients who did not have surgery after neoadjuvant CRT or RT were retrospectively evaluated. Between May 2009 and December 2018 26 patients were treated with radiotherapy (RT). All of the patients should have biopsy proven adenocarcinoma located in the proximal (24%), middle (20%) or distal (56%) one third of the rectum.

Patients received either short course (25 Gy/5 fractions) or long course RT (median 50.4 Gy/28 fractions) ±ChT.

Results: Median age was 62 years (range, 29-88 years) and 58% of patients were female. Fifteen patients had stage III disease (57%) and 5 patients (19%) had stage IV disease according to 8th version of AJCC staging system. Short course of RT was delivered to 4 patients (15%) and long course of RT was delivered to 22 patients (85%). Median RT dose was 50.4 Gy (range, 25-60 Gy). Twenty patients (77%) received concomitant chemotherapy (ChT). Most common concomitant ChT regime used was oral capecitabine (70%) and continuous FU infusion (30%). Response to treatment was evaluated by digital rectal examination, endoscopy or radiological imaging. With a median follow-up of 15 months (range, 2-93 months) 8 patients (30%) had recurrence of disease at the irradiated site. Median overall survival (OS) was 26 months (95%CI: 18.4-33.9 months). Median locoregional control (LRC) was 11.7 months (95% CI: 6-17.4 months). Median distant metastases free survival (DMSF) was 23.4 months (95% CI: 9.9-37 months). Patients age ≤65 years old (p=0.054) and who received adjuvant ChT (p=0.006) had better OS. Patients who had received adjuvant ChT had better LRC (p=0.043). Patients age ≤65 years old (p=0.033) and who had concomitant CRT had better DMFS (p=0.054). Patients tolerated the treatment well with no grade 3 acute or late gastrointestinal and genitourinary system toxicities.

Conclusion: Neoadjuvant CRT followed by surgery is the standard treatment for locally advanced rectal cancer. Patients who refused surgery and have low life expectancy might be good candidates with close follow up.

Keywords: rectum, cancer, chemotherapy, radiotherapy, surgery

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OP-003

IMPORTANCE OF SERUM VEGFA LEVEL IN HEPATOCELLULAR CANCER PATIENTS, ITS RELATIONSHIP WITH CLINICOPATHOLOGIC PARAMETERS

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Background: Neovascularization plays one of the most important pathogenic roles in tumorigenesis and vascular endothelial growth factor (VEGF) is key signaling elements that drive angiogenesis, thereby enabling hepatocellular cancer (HCC) growth and metastasis. We aimed to define the role of serum VEGFA level in Turkish HCC patients and its relation with clinicopathologic features.

Methods: A total of 84 HCC patients were enrolled prospectively. Serum VEGFA levels were analyzed and serum level of VEGFA compared according to many different types of the clinicopathologic features of HCC.

Results: 48 of patients were cirrhotic and 35 were non-cirrhotic. Serum VEGFA levels were significantly lower in patients with HCC in cirrhosis compared with non-cirrhotic HCC (p =0.03).In terms of type of viral hepatitis, 36 (%42.8) of patients were hepatitis B virus (HBV) positive, 8 (%9.5) of patients were hepatitis C virus (HCV) positive. There was a significant difference between OS rates of patients with serum VEGFA level < 100 pg/mL and patient with serum VEGFA levels ≥ 100 pg/mL (p=0.01), the OS rates were 5.8 and 14.2 months, respectively (p=0.02). The median OS was 7.38 months (95% CI: 5.89 – 13.79 months). There was significant relationship between serum VEGFA level and the tumor size, and patients with tumor size ≤ 5cm had higher VEGFA than > 5 cm, which were 342.1 and 132.7 pg/mL, respectively (p<0.001). The median follow-up was 32 months.

Conclusions: Serum VEGFA level, a biological marker of angiogenesis, is an independent predictor of survival in patients with HCC. Serum VEGFA level may be useful to predict treatment response targeting serum VEGFA in HCC treatment.

Keywords: HCC, VEGFA, prognosis, neoangiogenesis, hepatitis B virus

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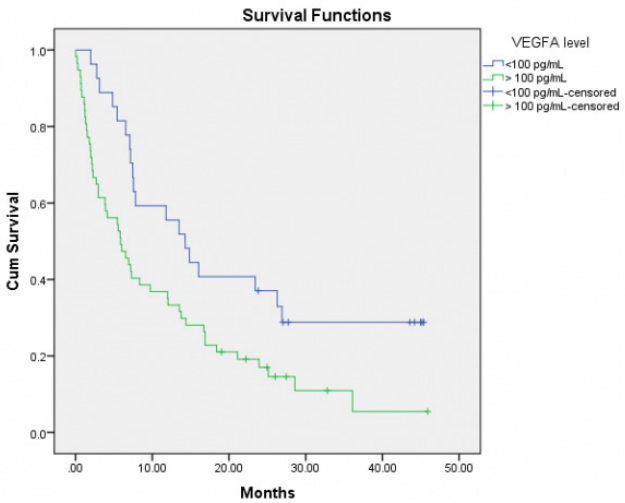

Figure 1. The survival rates of HCC patients according to serum VEGFA level were estimated by the Kaplan-Meier

Table 1. Demographic and Clinical Characteristics of the Patients at Baseline

		Number	*Percentage*
Total patients(n)		84	100%
Median age of all patients		64 (19-90)	100%
Median age	Female	65(29-85)	19%
	Male	64(19-90)	81%
Gender	Female	13	15.5%
	Male	71	84.5%
AFP	AFP≤400	53	63.1%
	AFP>400	30	35.7%
Child-Turcotte-Pugh	A	58	69.9%
	B	22	26.5%
	C	3	3.6%
Portal Vein invasion	No	47	56.6%
	Yes	36	43.4%
Treatment groups as the first-line	Surgery	9	12%
	RFA or MWA	7	9.3%
	TACE or TARE	22	29.3%
	Systemic cytotoxic treatment	24	32%
	Tyrosine Kinase inhbitor	9	12%
	BSC	4	5.3%
Hepatitis Infection	HBV Positive	36	42.9%
	HBV Negative	48	57.1%
	HCV Positive	8	9.6%
	HCV Negative	76	90.4%
Cirrhosis status	No	35	42.2%
	Yes	48	57.8%
Diabetes	No	46	54.8%
	Yes	22	26.2%
Body Mass Index (BMI)	Healthy weight	30	40%
	Overweight	30	40%
	Obese	15	20%

OP-004

COLORECTAL CARCINOMA IN YOUNG ADULTS: A SINGLE CENTER EXPERIENCE OF 10 YEARS

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Intruduction: Recently, it is recommended to start colorectal cancer screening at the age of 50, except for special groups. However, there is an increase in the diagnosis of colorectal cancer in the younger age group. One out of every 10 patients diagnosed with colorectal cancer is reported to be <50 years of age[1-2]. In this study, we aimed to investigate the clinicopathological features of young adult (ages 18-35 years) patients over a 10-year period.

Methods: The files of all patients with colorectal cancer followed up in our clinic between 2008 and 2017 were retrospectively reviewed. Patients aged 18-35 years at the time of diagnosis were included in the study. Demographic characteristics, family history of colorectal cancer and clinicopathological characteristics of the patients were recorded. Descriptive analysis and survival analysis were performed.

Results: The analysis included 1831 patients, of whom 54 was aged 18-35 years old. Median age of these patients was 31 and 51.8% (n:28) were female. Patient characteristics are shown in table 1. Seven patients (12.9%) had a family history of colorectal cancer. Half of the patients had colon carcinoma and half of them had rectum carcinoma. The tumor localization was the right colon in 12 (22.2%) patients and left colon in 47 (77.7%) patients. Mostly diagnosed subgroup was adenocarcinoma (n: 47, 87.0%). Altough 18 (33.3%) patients were in the metastatic stage at the time of diagnosis, the majority of patients (n: 23, 42.5%) had stage 3 disease. During the median follow-up of 23 months (1-114 months), 27 (50%) patients were exitus. Median overall survival (OS) at the metastatic stage was 13 months. Two-year OS was 20.8% for the metastatic stage and 69% for the non-metastatic stage (figure 1, p <0.0001).

Conclusions: The young adult group was a small group of all patients with colorectal cancer. The left colon cancer as tumor site and the adenocarcinoma as the histological subtype were predominant in young adults. The rate of de novo metastatic patients was slightly higher than the other studies. The median OS in the metastatic stage was found to be shorter than previously reported. Colorectal carcinoma is thought to be more aggressive in young adults and larger studies are needed to investigate factors affecting mortality.

Keywords: colorectal carcinoma, young adults, family history of colon cancer

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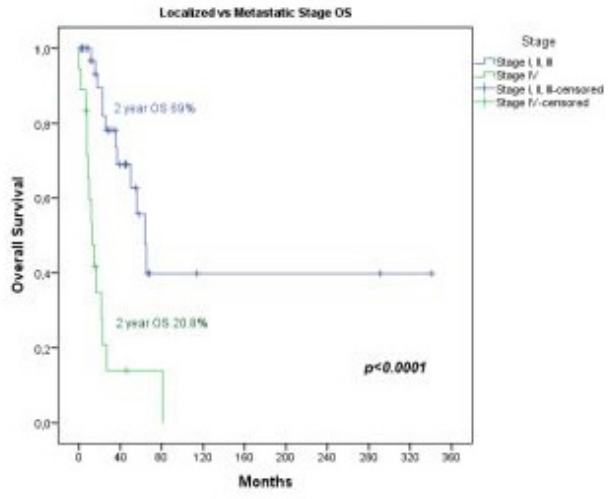

Figure 1. Overall survival according to localized or metastatic stage

Table 1. Patient characteristics

	n: 54	%
Median age (year, range)	31 (18-35)	
Sex		
Female	28	51.8
Male	26	48.1
Primarly localization		
Left side	42	77.7
Right side	12	22.2
Stage		
I	4	7.4
II	9	16.6
III	23	42.5
IV	18	33.3
Family history of colon cancer		
Positive	7	12.9
Negative	47	87.0
Histology		
Adenocarcinoma	47	87.0
Mucinous carcinoma	7	12.9
Exitus	27	50

OP-005

THE ROLE OF DIFFUSION-WEIGHTED IMAGING IN PATIENTS WITH GASTRIC WALL THICKENING

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Background: Gastric cancer is the second leading cause of cancer death worldwide.

Aims: In the benign and malign gastric pathologies, we measured the apparent diffusion coefficient (ADC) value from the thickened section of the stomach wall. We assessed the diagnostic value of ADC and we wanted to see whether this value could be used to diagnose gastric pathologies.

Study Design: This study has a prospective study design.

Methods: A total of 90 patients, 27 with malign gastric pathologies 63 with benign gastric pathologies with gastric wall (GW) thickening in multidector CT, were evaluated by T2 weighted axial MR imaging and diffusion-weighted imaging (DWI). Measurements were made both from the thickened wall and from the normal GW. Also a new method called GW/spine ADC ratio was performed in image analysis. The value found after ADC measurement from the GW was proportioned to the spinal cord ADC value in the same section.

Results: The ADC values measured from the pathological wall in patients with gastric malignancy (1.115 ± 0.156 x10^{-3}mm2/s) were significantly lower than the healthy wall measurements (1.621 ± 0.292 × 10^{-3} mm2 / s) and benign gastric diseases (1.790± 0.359 x10−3 mm2/s). GW/spine ADC ratio was also lower in gastric malignancy group.

Conclusions: ADC measurement in DWI can be used to distinguish between benign and malign gastric pathologies.

Keywords: Gastric Wall Thickening; Gastric Cancer; Diffusion Weighted Magnetic Resonance Imaging; Apparent Diffusion Coefficient

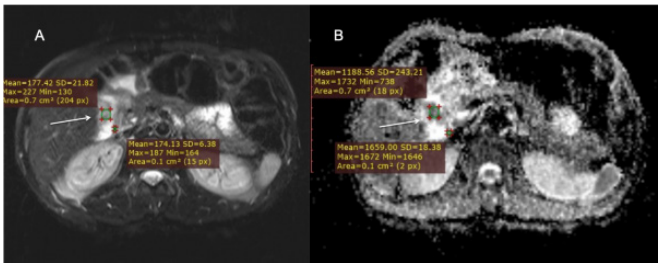

Figure 1. A 56 year-old patient with gastric adenocarcinoma. (a) Axial T2-weighted MRI image shows irregular hypo-intense wall thickening in the antrum (arrow). (b) Corresponding apparent diffusion coefficient (ADC) map of the patient. ROIs are copied and pasted from T2-weighted image. The ADC value of the thickened antrum (1.118 x10-3 mm2/s) is significantly lower than ADC values of the normal gastric wall (1.659 x10-3 mm2/s).

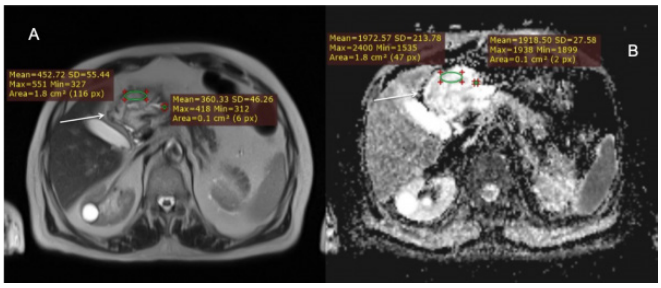

Figure 2. Description of the Figure: A 55 year-old patient with chronic gastritis. (a) Axial T2-weighted MRI image shows slightly hyper-intense symmetric wall thickening in the antrum (arrow).(b) Corresponding apparent diffusion coefficient (ADC) map of the patient. ROIs are copied and pasted from T2-weighted image. The ADC value of the thickened antrum wall (1.972 x10-3

Table 1.

.	*Gastric malignancies (n =32)*	*Benign gastric pathologies (n =36)*	*P value*
ADC (mean ± SD)	1.115 ± 0.156 x 10−3 mm^2/s	1.790± 0.359 x10−3 mm^2/s	<0.001*
GW-spinal cord ADC ratio	1.060 ± 0.172	1.768 ± 0.415	<0.001*

OP-006

COMPARISON OF OPERATIVE AND ONCOLOGICAL OUTCOMES BETWEEN ROBOTIC VERSUS LAPAROSCOPIC SURGERY FOR RECTAL CANCER

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Background: Introduction of total mesorectal excision (TME) induced a drastic improvement in the treatment of rectal cancer by improving survival and decreasing local recurrence rates[1,2]. In addition, advancements in neoadjuvant and adjuvant chemo/radiotherapy regimens enhanced better outcomes in treatment modalities[3]. Increasing use of minimally invasive techniques has dramatically changed the colorectal surgery practice over the last three decades since the introduction of laparoscopic colectomy by Jacobs[4]. This study aimed to compare short- and long-term oncologic outcomes after robotic versus laparoscopic approach in patients undergoing curative surgery for rectal cancer.

Patients and Methods: A total of 116 patients undergoing elective robotic versus laparoscopic resection for rectal cancer between 10/2011 and 1/2017 were included. Patients with stage 4 disease, synchronous colon cancer or recurrent cancer were excluded. Demographics, perioperative characteristics, and postop-

erative short-term outcomes, and 5-year overall and disease-free survival rates were compared between the robotic (RG) and laparoscopic groups (LG).

Results: There were 72 patients in the RG and 44 patients in the LG. The groups were comparable in terms of age, gender, body mass index, American Society of Anesthesiologists physical status, tumor location, neoadjuvant chemo/radiotherapy use and pTNM stage. No differences were detected regarding circumferential margin positivity (p=0.19), completeness of mesorectum (p=0.21), conversion to open surgery (1.3% vs 0%), and 30-day postoperative complication rates (11.3% vs 9.3%, p=0.74). Operative time was longer in the RG (341±SD vs 263±SD min, p=0.001) and length of stay was longer in the LG (4.4±1.9 vs 6.4±2.9 days, p=0.001). The 5-year overall survival and disease-free survival rates were similar (97.1% and 94.9%, p=0.78; 86.2% and 82.7%, p=0.72) between the groups.

Conclusion: Robotic surgery is a safe surgical technique and applicable alternative modality by keeping the benefits of minimally invasive surgery with similar long-term survival outcomes for rectal cancer surgery.

Keywords: Robotic surgery, rectal cancer; laparoscopic surgery, long-term outcomes

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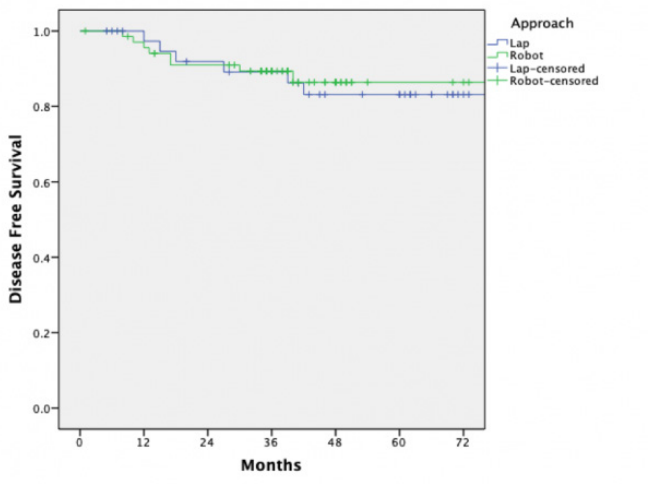

Figure 1. The 5-year overall survival between two groups.

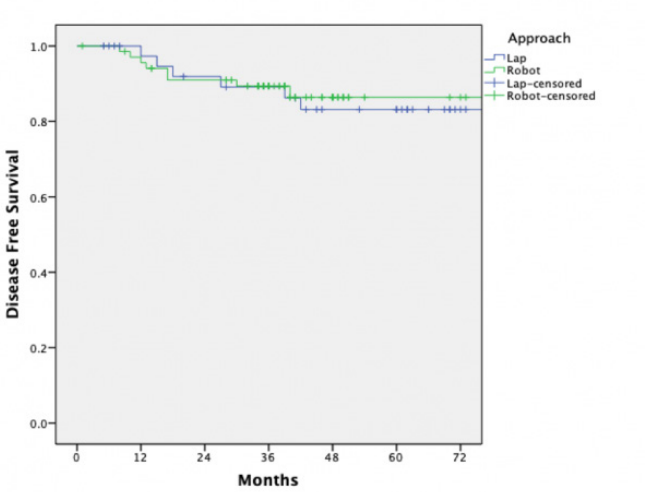

Figure 2. The 5-year disease-free survival between two groups.

Table 1. Comparison of demographic and clinic features between two groups.

	Laparoscopy (n=44)	*Robot (n=72)*	*P value*
Age (years), mean±SD	57.2±13.3	59±11.1	59±11.1
Sex (male), n (%)	33(75)	42 (58,3)	0.068
BMI (kg/m2), mean±SD	28±3.8	26.4±3.8	0.050
Comorbidity, n (%)			0,397
yes	18 (40,9)	36 (50)	
no	26 (59)	36 (50)	
ASA score, n (%)			1
2	42 (95,5)	68 (94,4)	
3	2 (4,5)	4 (5,6)	
Neoadjuvant therapy			0,885
yes, n (%)	22 (50)	35 (51,4))	
no, n (%)	22 (50)	37 (48,6)	
Tumor location, n (%)			0,465
Upper, n (%)	19 (43,2)	28 (38,9)	
Mid, n (%)	15 (34,1)	20 (27,8)	
Lower, n (%)	10 (22,7)	24 (33,3)	
Operation Type, n (%)			2,234
LAR	42 (95,5)	65 (90,2)	
APR	2 (4,5)	7 (9,7)	
Conversion, n	0	1	1
Operation time (min)	262.7±97.5	341,9±111.7	0,000
Ostomy, n (%)			0,623
no	13 (29,5)	23 (31,9)	
colostomy	2 (4,5)	7 (9,7)	
Ileostomy	29 (37,9)	42 (58,3)	

OP-007

THE VIEW OF TURKISH ONCOLOGISTS REGARDING MSI STATUS AND TUMOR LOCALIZATION IN STAGE 2-3 COLORECTAL CANCER

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The addition of 5-FU or capecitabine to surgery made an improvement in both overall survival (OS) and disease-free survival (DFS) in early stage colorectal cancer. The capecitabine had similar results when compared with 5-FU in terms of DFS and OS which made FOLFOX and XELOX protocols available in adjuvant setting. Although several clinical factors used for evaluating the risk of relapse, there is no consensus which risk factors are more reliable. Unlike the other predictive factors, microsatellite instability (MSI-H) which represents DNA mismatch repair (MMR) as a biologic biomarker has determined to be a strong prognostic factor. MSI-H considered being predictive for the treatment with 5-FU based chemotherapy. After the IDEA study, current practice in stage 3 colon cancer changed. In this study, we try to evaluate both the utility of MSI and the daily practice of the Turkish oncologists in stage 2 and 3 colon cancer.

We conducted an online questionnaire via Google Forms on the treatment of stage 2-3 colon cancer. The online form was sent via e-mail and social media accounts of Turkish oncologists.

More than 65% of the oncologists declared to use of MSI testing in stage 2 colon cancer without considering any risk factors. In stage 3 colon cancer oncologists had an equal decision 'to do or not to do' in MSI testing. Also, the numbers of oncologists who consider risk factors to use MSI testing were under 10%. One-third of the oncologists were declared they would order genetic testing in patients who had a positive result in immunohistochemistry. One-fourth of the oncologists take into account tumor localization while ordering MSI testing in stage 2 colon cancer. This rate was reported to be 17% percent in stage 3.

More than 50% of the oncologists preferred XELOX protocol in high-risk stage 2 (T4N0) colon cancer while three out of four declared they will prefer observation in low-risk stage 2 (T3N0) patients without risk factors. Two-thirds of the oncologists preferred six months of treatment in stage 2 colon cancer with at least one risk factor. Six months of FOLFOX and XELOX treatments were most preferred protocols in low risk stage 3 (T3N1) patients and 80% of the oncologists do not consider tumor sidedness while deciding the chemotherapy protocol in this group of patients. In high-risk stage 3 colon cancer (T4/N2) all of the oncologists preferred six months of treatment mainly FOLFOX following XELOX without considering tumor localization. More than 50% percent of the physicians declared they will decide the utility of the oxaliplatin in patients case of performance status and comorbidities in patients over 70 years.

Turkish oncologists had conflicting results compared with the guidelines especially, in the utility of MSI testing in stage 3 colon cancers. Although the non-inferiority of 3 months of XELOX was proved in IDEA trial, most of the Turkish oncologists still prefer 6 months of chemotherapy in low risk stage 3 colon cancer.

Keywords: Early colon cancer, Adjuvant treatment, Oncologists, Microsatellite instability

OP-008

ADJUVANT TREATMENT EFFICACY IN STAGE 3/4A ESOPHAGEAL SQUAMOUS CELL CARCINOMA

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Introduction: Esophagus cancer is the seventh most common cancer and the sixth most common cause of cancer-related deaths. Squamous cell carcinoma and adenocarcinoma are the most common histological subtypes. Heavy alcohol usage, smoking and nitrosamine exposure are risk factors for Esophageal Squamous Cell Carcinoma (ESCC), obesity and gastro esophageal reflux disease are risk factors for adenocarcinoma. Although surgical resection is the standard treatment, recurrence is typically reported in the first year after surgery with rapid death. Although survival rates are improved in recent years, 5-year overall survival (OS) rate is still lower than 20%. The effect of adjuvant treatment on survival in operated ESCC patients is controversial. The aim of our study is to evaluate if there is an effect of adjuvant treatment on progression free survival (PFS) and OS of operated stage 3/4A ESCC patients.

Materials and Methods: ESCC patients referred to Yuzuncu Yil University department of medical oncology between 2005 and 2015 were included. Patients that did not receive neoadjuvant treatment, patients that operated with negative surgical margins, and patients with stage 3/4A disease were analyzed. SPSS 22.0 for Windows program was used for statistical analyses.

Findings: A total number of 34 patients were included in the study. Of the patients, 22 received adjuvant treatment and 12 did not receive adjuvant treatment. Mean age was found to be as 53,2±12 in the group that received adjuvant treatment and 59,7±8,9 in the group that did not receive adjuvant treatment (p=0,119). In both groups, most of the patients had T3 tumor. Similarly, in both groups, most of the patients had N1 disease. No difference was observed between groups in terms of T and N stage. The demographical features of the patients are shown in Table 1. The analysis of the adjuvant treatments showed that four patients had received chemotherapy, 15 patients had received radiotherapy, and three patients had received chemoradiotherapy. PFS of the patients that had received and that had not received adjuvant treatment was found as 15 months and 16 months, respectively and the difference was statistically not significant (p=0.971). OS was found as 21 months and 36 months, respectively. Although OS is shorter in the group that received adjuvant treatment, the difference was statistically not significant (p=0.882). PFS and OS curves of the patients are shown in Figure 1.

Conclusion: Many factors affect survival of the patients that received curative treatment for esophageal cancer. It was reported that adjuvant treatment might have OS benefit in node positive patients with ESCC. But at present time, adjuvant treatment still is not a standard treatment. In our study, adjuvant treatment did not lead to statistically significant difference in PFS and OS. It is expected that the place of adjuvant treatment in ESCC will become clearer with larger prospective studies that will be designed in the future.

Keywords: Adjuvant treatment, esophageal cancer, overall survival, squamous cell carcinoma

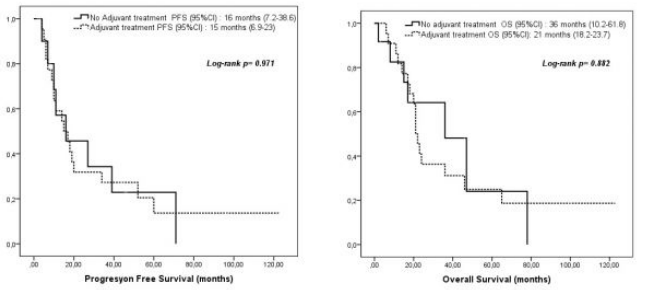

Figure 1. PFS and OS curves of the patients.

Table 1. Clinical and demographical features of stage 3/4A esophageal squamous cell carcinoma patients

		Adjuvant treatment status				*All patients*		*p*
		Absent		*Present*				
		n	*%*	*n*	*%*	*n*	*%*	
Gender	Male	6	50,0	9	40,9	15	44,1	0,610
	Female	6	50,0	13	59,1	19	55,9	
Smoking	Absent	6	50,0	12	54,5	18	52,9	0,800
	Present	6	50,0	10	45,5	16	47,1	
ECOG	0	3	25	2	9,1	5	14,7	0,386
	1	8	66,7	19	86,4	27	79,4	
Localization	Middle	1	8,3	9	40,9	10	29,4	0,046
	Lower	11	91,7	13	59,1	24	70,6	
Grade	Unknown	3	25,0	5	22,7	8	23,5	0,916
	Well	2	16,7	5	22,7	7	20,6	
	Moderate	7	58,3	12	54,5	19	55,9	
T Stage	1	1	8,3	1	4,5	2	5,9	0,384
	2	0	0	3	13,6	3	8,8	
	3	11	91,7	18	81,8	29	85,3	
N Stage	1	7	58,3	13	59,1	20	58,8	0,986
	2	2	16,7	4	18,2	6	17,6	
	3	3	25	5	22,7	8	23,5	
Stage	3	9	75	17	77,3	26	76,5	0,881
	4A	3	25	5	22,7	8	23,5	
Recurrence	Absent	4	33,3	4	18,2	8	23,5	0,320
	Present	8	66,7	18	81,8	26	76,5	
Last Status	Dead	7	58,3	17	77,3	24	70,6	0,247
	Alive	5	41,7	5	22,7	10	29,4	

OP-009

PATTERNS OF RECURRENCE IN GASTRIC ADENOCARCINOMA, SINGLE CENTER EXPERIENCE

Melek Akçay[1], Durmus Etız[1], Alaattin Ozen[1]

[1]*Eskişehir Osmangazi University Faculty Of Medicine Radiation Oncology*

Aim: Gastric cancer is the fourth most common cancer worldwide and the second most common cause of cancer-related death (1). The recurrence of gastric cancer after curative therapy had adverse effects on patients' survival. The treatment presence varied from different centers/countries. The aims of this study were to understand the recurrence incidence and patterns.

Material and Methods: 75 patients with gastric cancer who underwent radiotherapy / chemoradiotherapy in Eskişehir Osmangazi University Faculty of Medicine Radiation Oncology Department between 2013-2019 were evaluated. All patients underwent surgery and radiotherapy was given as adjuvant. RT was delivered in daily fractions of 1,8 Gy to a total dose of median 45 Gy (range: 45-54). All patients' clinical pathological characteristics, treatment, recurrence and survival information were retrospectively reviewed based on operative notes and medical records.

Results: The median age was 60 years. The female / male ratio was 16 (21.3%) / 59 (78.7%). Tumor location was proximal in 17 cases, middle in 25 cases and distal in 33 cases. Patient and tumor characteristics are summarized in Table-1. There were 12 (16%) patients who received neoadjuvant chemotherapy and 63 (84%) patients who received concurrent chemotherapy. All patients received adjuvant adjuvant radiotherapy and chemotherapy. Treatment characteristics are summarized in Table 2. At a median follow-up of 23 months, 33 patients had recurrence. 37 cases died of cancer or cancer-independent causes. Median overall survival was 23 (range: 7-82) months, while median disease-free survival was 18 (range: 5-80) months. The most common recurrence patterns were distant metastasis and peritoneal recurrence. Peritoneal recurrence was detected in 13 cases and distant metastasis in 16 cases. Recurrence patterns are given in Figure 1.

Conclusion: Recurrence at a distant site was the most common site of recurrence among patients with either solitary or multiple site recurrence. Because the majority of recurrences were distant, our data support the notion that efforts to improve outcomes in these patients should concentrate on enhancing systemic therapy. The peritoneum was a common site of recurrence after curative treatment of gastric cancer. Prophylactic treatment targeting the peritoneal cavity might decrease peritoneal recurrences.

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Keywords: gastric cancer, radiotherapy, recurrence patterns

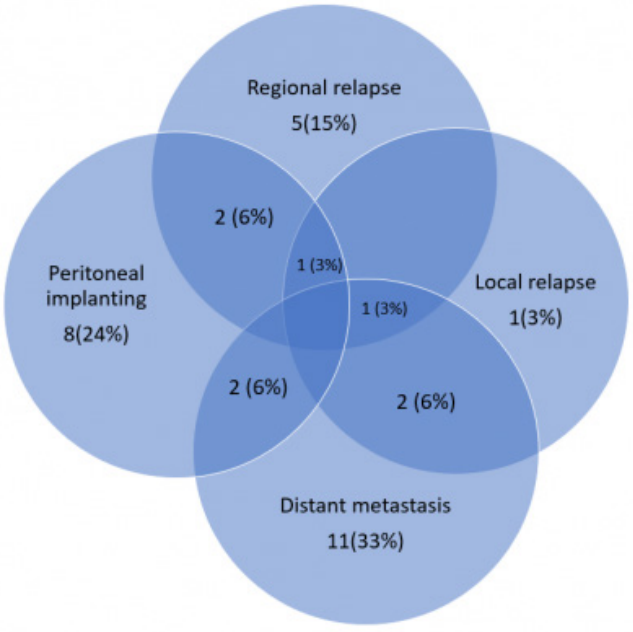

Figure 1. Recurrence Patterns

Table 1. Patient and Tumor Characteristics	
Clinical features	No. of patients (n=75)
Age	Median: 60 (range 22-78)
Sex, n (%): Female /Male	16 (21,3%) /59 (78,7%)
KPS	Median: 90 (range 70-100)
Tumor location, n (%): Proximal/ Middle/ Distal	17(22,7%)/ 25(33,3%)/ 33(44%)
T Stage, n (%): Ia/ Ib/ II/ III/ IVa/ IVb	2 (2,7%)/ 1 (1,3%)/ 4(5,3%)/ 43(57,3%)/ 24 (32%)/ 1 (1,3%)
N Stage, n (%): N0/ N1/ N2/ N3a/ N3b	11(14,7%)/ 17 (22%)/ 21(28%)/ 16(21,3%)/ 10(13,3%)
TNM Stage, n (%): IB/ IIA/ IIB/ IIIA/ IIIB/ IIIC	1 (1,3%)/ 10(13,3%)/ 17(22,7%)/ 20(26,7%)/ 14(18,7%) /13(17,3%)
Tumor Grade, n (%): I (well differentiated)/ II (moderately differentiated)/ III (poorly differentiated)	6(8%)/ 31(41,3%) / 38(50,7%)
Lymphatic invasion, n (%): Positive/ Negative	47(62,7%)/ 28(37,7%)
Vascular invasion, n (%): Positive/ Negative	44 (58,7%)/ 31(41,3%)
Perineural invasion, n (%): Positive Negative	46(61,3%)/ 29(38,7%)
Tumor size (mm):	Median: 55 (range 10-150)

Table 2. Treatment characteristics	
Clinical features	***No. of patients (n=75)***
Radiotherapy dose	Median: 45 Gy (range :45-54)
Type of resection, n (%): Total gastrectomy/ Subtotal gastrectomy	56(74,4%)/ 19(25,3%)
Lymph node dissection, n (%): D1/ D2	37 (49,3%)/ 38(50,7%)
Number of lymph node dissection	Median: 25 (range 6-82)
Number of metastatic lymph nodes	Median: 4 (range 0-52)
Number of metastatic lymph nodes/ Number of lymph node dissection	Median: 3(range 0-5)
Surgical margin, n (%): R0/ R1/ R2	57(76%)/ 14(18,7%)/ 4(5,3%)
Neoadjuvant chemotherapy, n (%): Yes/ No	12(16%)/ 63(84%)
Concurrent chemotherapy, n (%): Yes/ No	63(84%)/ 12(16%)
Concurrent chemotherapy regimen, n (%): FUFA/ Capecitabine/ None	38(50,7%)/ 25(33,3%)/ 12(16%)

OP-010

PROGNOSTIC SIGNIFICANCE OF IGF-1 IN HEPATOCELLULAR CANCER PATIENTS: TURKISH VALIDATION STUDY

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Background: Hepatocellular carcinoma (HCC) is one of the most common and fatal cancer types. HCC usually occurs in patients with chronic liver disease or cirrhosis. Child-Turcotte-Pugh score (CTP) is the most commonly used tool to assess hepatic reserve and determine survival. CTP stratification accuracy has been questioning, to improve the objectivity of parameters used, serum insulin-like growth factor 1 (IGF-1) has been recommended to construct a new more objective scoring system namely IGF-CTP to improve prognostic accuracy.

Methods: A total of 84 HCC patients were enrolled prospectively. Serum IGF-CTP levels were analysed in addition to CTP scores. C-index was used to compare the prognostic significance of the two scoring systems and overall survival (OS).

Results: 48 of patients were cirrhotic and 35 were non-cirrhotic. In terms of type of viral hepatitis, 36 (%42.8) of patients were HBV positive, 8 (%9.5) of patients were HCV positive. Serum IGF-1 levels were significantly lower in patients with HCC in cirrhosis compared with non-cirrhotic HCC (p =0.04). There was a significant difference between OS rates of patients with serum IGF-1 level < 50ng/mL and patient with serum IGF-1 levels ≥ 50ng/mL (p=0.02), the OS rates were 6.5 and 14.8 months, respectively (p=0.02). The median OS was 7.38 months (95% CI: 5.89 – 13.79 months). The estimated C-index for CTP and IGF-CTP systems were 0.605 (95% CI: 0.538, 0.672), and 0.599 (95% CI: 0.543, 0.655), respectively. The U statistics indicated that the C-indexes between two score systems are not statistically different (P= 0.91).

Conclusions: This is the first study to evaluate IGF-1level and the IGF-CTP classification in a predominantly HBV (+) cohort of HCC patients. Despite the correlation of serum IGF-1 level with OS in HCC patient population, the IGF-CTP classification was not better than original CTP classification system to predict patients OS rates.

Keywords: Hepatocellular carcinoma, CTP, cirrhosis, survival, IGF-1

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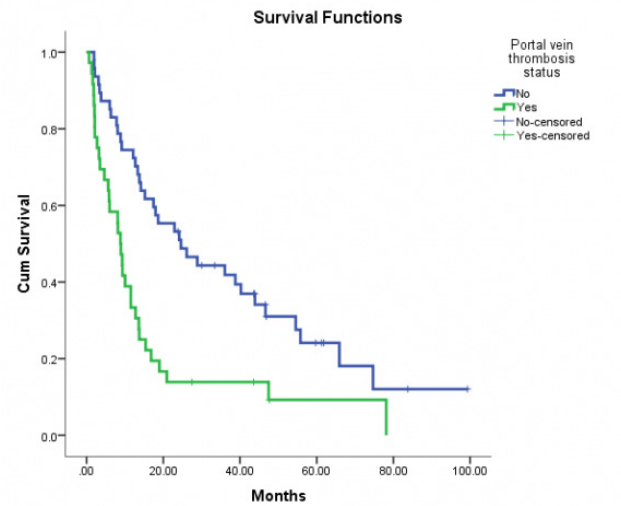

Figure 1. The survival rates of HCC patients according to serum IGF-1 level were estimated by the Kaplan-Meier

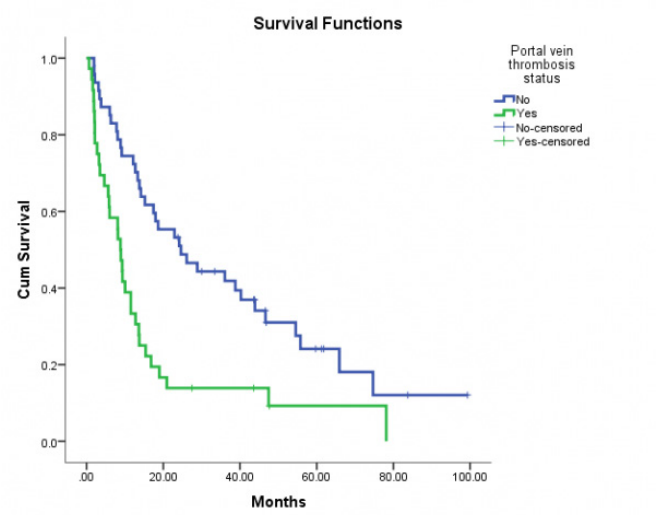

Figure 2. The survival rates of HCC patients according to portal vein thrombosis status were estimated by the Kaplan-Meier

Table 1. Cox regression analysis and prognostic factors for survival

	Hazard Ratio(95% CI)¥	*P value*
IGF-1>50 vs. IGF-1 < 50	0.50 (0.27-0.91)	0.024*
AFP>400 vs. AFP ≤ 400	1.95 (1.19-3.18)	0.008*
Male vs. Female	0.78 (0.40-1.48)	0.44
Portal vein invasion positive vs. negative	2.36 (1.45-3.85)	0.001*
AST ≤ 45 vs. AST >45	2.64(1.57-4.44)	<0.001*
ALT ≤ 40 vs. ALT >40	1.70(1.05-2.76)	0.031*
Bilirubin ≤ 2 vs. bilirubin >2	2.17(1.18-4.02)	0.013*
Metastatic status, positive vs. negative	2.18 (1.24-3.84)	0.007*
Surgery vs. BSC	0.05 (0.01-0.21)	<0.001*
Systemic cytotoxic treatment vs. BSC	0.23 (0.07-0.71)	0.011*
Tyrosine Kinase vs. BSC	0.29 (0.08-1.03)	0.056
RFA or MWA vs. BSC	0.14 (0.04-0.51)	0.003*
TACE or TARE vs. BSC	0.14 (0.04-0.45)	0.001*

OP-011

COMBINED MODALITY TREATMENT IN BORDERLINE PANCREATIC CANCER: SURVIVAL ANALYSIS AFTER OPTIMAL SURGERY IN TERTIARY GREEK CENTER

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Background: Patients with pancreatic cancer, which is not upfront resectable, but borderline resectable, involving major peripancreatic vessels, have not been generally considered for surgery, considering that resection in such a setting may be futile.

Materials and Methods: Retrospective analysis of prospectively collected data on patients with borderline resectable pancreatic adenocarcinoma undergoing pancreatectomy in a tertiary referral center in Greece between January 2014 and July 2019. Follow-up was completed on November 2019.

Results: Forty patients were included. Neoadjuvant therapy was administered to 60%, however not the same regimen for everyone. It was associated with smaller tumor size (median: 2.3cm vs 4.2cm, p<0.001). And also was associated with lower likelihood of venous resection (58% vs 100%, p=0.003), but not with survival.

Major peripancreatic venous resection was necessary in 75%. It was associated with bigger tumor size (median: 3.1cm vs 2cm, p=0.01), higher number of positive LNs (median: 2 vs 0, p=0.007), and higher LN ratio (median: 8% vs 0, p=0.02).

Resection was extensive: a median of 23 lymph nodes were retrieved and R0 resection rate (≥1mm) was 88%. Median ICU stay was 0 days and length of hospital stay 9 days. Postoperative mortality was 2.5%. Median overall survival was 25 months. ECOG status was significantly associated with survival (p<0.001) with 26 months for ECOG-0 and 13 months for ECOG-1.

Conclusion: This first Greek national series with extensive, low-mortality and low-morbidity pancreas resection in borderline resectable pancreatic cancer demonstrates that it results to 2 years of median survival. A lot of improvement may be expected with uniform administration of modern standardized neoadjuvant chemotherapy.

OP-012

IMPORTANCE OF HBA1C, FASTING GLUCOSE AND INSULIN LEVELS IN COLON CANCER

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Objective: The primary task of insulin is to control the blood glucose level. However, with recent studies, there is increasing evidence that high insulin levels and insulin-mediated signaling cause cancer development and progression. The aim of this study is to determine insulin resistance in patients diagnosed with colon cancer and the importance of insulin resistance on solid tumor development by comparing with healthy controls.

Methods: In this study, 20 female and 20 male patients with stage 3 and 4 colon cancer without diabetes, thyroid disease, oral antidiabetic treatment and family history of diabetes were compared with the healthy control group of 20 women and 20 men.

Results: The mean age of the patients and control group was 55.65 and 54.6, respectively. The mean body surface area (BSA) of the patients was 1.69 m^2 and the mean BSA of the control group was 1.68 m^2. The mean HbA1c was 6.35±0.54 % in patient group and 5.46±0.45 % in control group. The mean fasting blood glucose of the patients was 101.38±16.40 mg/dL and significantly higher than control group with an average fasting blood glucose of 90.23±7.69. The mean insulin level of the patients was 13.28±3.80 mIU/L and significantly higher compared to control group with 8.78±1.80 mIU/L. SPSS 21 is used for statistical analysis. Independent sample T-Test is used for comparison. HbA1c levels, fasting glucose and insulin levels are significantly higher in colon cancer group than control group.

Discussion: Many studies eveluated that high glucose levels and insulin concentration as potential risk factors for colon cancer. Insulin has metabolic and mitogenic effects by its interactions with insulin receptor and having a kinship with type 1 insulin-like growth factor receptor (IGF-1R). Insulin resistance and the consequently compensatory hyperinsulinaemia affect the metabolic pathways, overstimulate the mitogenic activity and activate IGF-1R. The mechanisms of colorectal carcinogenesis were pointed as high insulin and free IGF-1levels stimulate cellular growth and proliferation, reduce apoptosis and increase vascular endothelial growth factor levels(IGF-Hyperinsulinemia theory). Another possible carcinogenic mechanism may concern a hormone secreted by intestinal endocrine L cells named glucagon-like peptide 1(GLP-1).

Conclusion: Our study shows that hyperinsulinemia and its leading factors as insulin resistance, hyperglycemia quantitatively associated with the risk of CRC. Studies with larger patient groups will give further information about this relevance.

Keywords: Colonic Neoplasms, Carcinogenesis, Insulin, Glucose,

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OP-013

THE ROLE OF NEOADJUVANT RADIOTHERAPY IN RECTAL CANCER: HACETTEPE UNIVERSITY EXPERIENCE

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Purpose: Neoadjuvant chemoradiotherapy (CRT) followed by surgical resection is the standard treatment for locally advanced rectal adenocarcinoma.[1,2] The aim of this study is to evaluate our treatment results in patients treated with neoadjuvant radiotherapy (RT).

Material and Methods: Between January 2009 and February 2019 197 patients were treated with radiotherapy in the neoadjuvant setting. Medical records were retrospectively evaluated. All of the patients should have biopsy proven adenocarcinoma located in the proximal (17%), middle (36%) or distal (47%) one third of the rectum. Most of the patients had (86%) MRI as a part of initial staging. Patients received either short course (25 Gy/5 fractions) (9%) or long course RT (91%) (median 50.4 Gy/28 fractions) ±chemotherapy (ChT).

Results: Median age was 58 years (range, 24-90 years) and 61% of the patients were male. Most of the patients had stage III disease (77%) and 9 patients (5%) had stage IV disease according to 8th version of AJCC staging system. Short course of RT was delivered to 17 patients (8.6%) and long course of RT was delivered to 180 patients (91.4%). One-hundred-seventy-seven patients received CRT. Most common concomitant ChT regime used was oral capecitabine (49%) and continuous FU infusion (41%). 96% of the patients completed the planned concomitant ChT. Patients were referred to surgery however 26 patients refused to have surgery. Median time to surgery was 8 weeks. Sphincter was preserved in 53% of the patients. Adjuvant ChT was received by 52% of patients. With a median follow-up of 23 months (range, 1-116 months), 19 patients had local and 30 patients had distant metastases. Two and five year estimated overall survival (OS), locoregional control (LRC) and distant metastases free survival (DMFS) rates were 84-60%, 76-53% and 74-50%, respectively. Patients age ≤65 years, who had surgery and sphincter preservation had better OS, LRC and DMFS. Having concomitant ChT and presence of pathological complete response after treatment improves OS and LRC. Patients having adjuvant ChT had better LRC and DMFS. On multivariate analyses only the presence of sphincter preservation significantly affect OS, LRC and DFS. Patients tolerated the treatment well with no grade 3 acute or late gastrointestinal and genitourinary system toxicities.

Conclusion: Neoadjuvant radiotherapy is an effective and safe treatment that improves treatment outcomes if combined with sphincter preserving surgery.

Keywords: rectum, cancer, radiotherapy, surgery, neoadjuvant, chemotherapy

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OP-014

CHARACTERISTICS AND OUTCOMES OF PATIENTS WITH BONE METASTATIC COLORECTAL CANCER

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Introduction: Colorectal cancer is one of the most common malignancies in the world. Most common sites of metastasis are liver, lymph nodes and lungs. Bone metastasis (BM) is seen in 8.6–27% of the cases in autopsi. Here, we discuss the demographic characteristic, pattern of bone involvement, and their correlation with the survival in patients of colorectal cancer that have BM.

Material and Metods: Tumor registry was analyzed retrospectively for the cases of colorectal cancers diagnosed between 2011 and 2016.Review of patients presenting as metastasis to bone was performed, and 25 such patients were identified of the total 400 patients . Clinical data including age, sex, t/n stage, histologyc type, operation status,localization and number of bone metastases,time to presentation outcome were extracted from the hospital records. SPSS version 25 was used for statistical analysis. The survival curves were generated using the Kaplan–Meier method and log-rank test was used to calculate the differences.

Results:25 from 400 patients of colorectal cancer were diagnosed with BM, 12 (%48) males anad 13 (%52) females. Median age was 61,4 years . Primary tumor site was rectum in 24 patient while 1 was sigmoid colon. The most common sites of BMwere vertebra(8), pelvis (13), followed by ribs and humerus.Number of BM were: One site in %20 (5 patient), two site in %48 (12 patient), three and more sites in %16 (4 patients) . Among the other sites of metastasis, most commonly involved were the liver (17 patients), lungs (15 patients). Rarely metastasis to ovary, peritoneum, brain was seen. Metastases to bone was sencronous in 4 (%16) and metachronous in 21 (%84) patient. 9 patients were metastatic at the time of presentation.Primery tumor were operated in 19 patient (3 from metastatic and all 16 of non-metastatic patients). Hystologyc types were as this: adenocarsinoma in 21,

musinous carsinoma in 3 and adenocarsinoma with neuroendocrine differantiation in 1 patient. T stage were 3 and more in 13 of 18 operated patients and in 12 of them it was N+ disease.Time from diagnosis to time of death was mean 30,6 month, while it was mean 21,3 m to time of BM and mean 9,6 (median 6) month time to death after BM.The mean survival of patients who were operated was 33 m (median 31 m) where who were not operated it was 22,8m (median 18 m).The median overall survival after diagnosis of BM was 6 month (mean 9,6 month) and İt was median 8 month in patients with 1 BM ,6 month in patients with 2 BM and 2 month in patient with 3 and more BM.All our patients had receieved bisphosphonate therapy and 6 six of them receieved also radiotherapy.

Conclusion: Except one all our patients were diagnosed with rectum cancer, so BM from CRC is not rare especially in rectum cancer. Many patients with BM develop skeletal-related events,while with new treatment strategies our patient will live long it's very important to detect BM and prevent SRE's to improve the quality of life in these patients.

Keywords: Colorectal cancer, bone metastases ,survival

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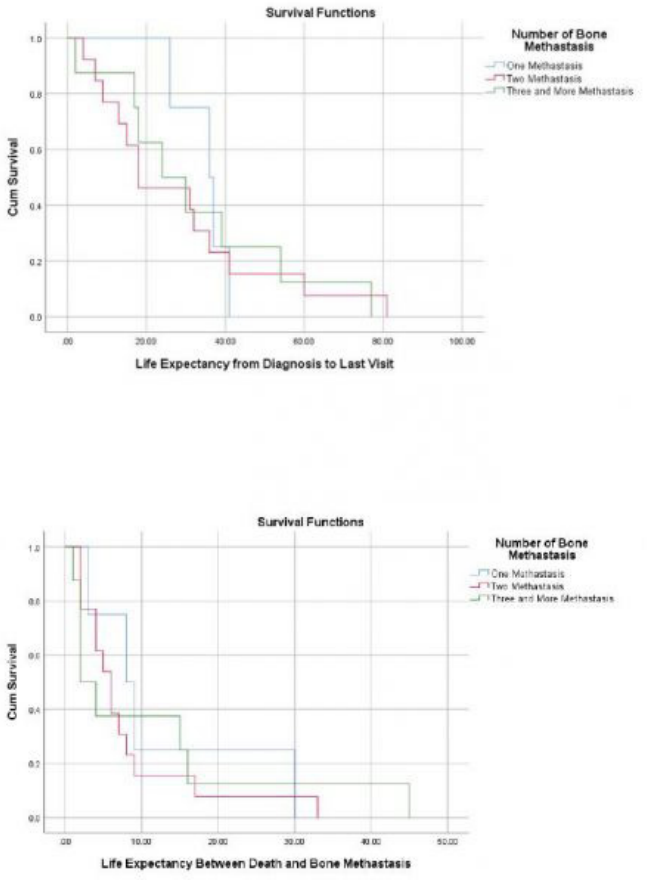

Figure 1. Survival curves

OP-016

MALIGN EPITHELIAL TUMORS OF THE APPENDIX

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Introduction: Primary cancers of the appendix are rare and often diagnosed incidentally with surgery (e.g. acute appendicitis). Most of these tumors are carcinoid and rarely there are cases with mucinous cystadenocarcinoma and adenocarcinoma (mucinous type, colonic type, adenocarcinoid) (1). They are usually diagnosed by mucin and tumor-containing primary tumors that are perforated and spread to the peritoneal cavity. Abdominal distention due to mucinous acid is called pseudomyxoma peritonei (PMP). Distal metastasis is rare. Enbloc excision and appendectomy are sufficient if not ruptured, while cytoreductive surgery and HIPEC are recommended if ruptured (2). The majority of patients with appendiceal adenocarcinomas present with a picture of acute appendicitis. In this study, we aimed to investigate the recurrence and prognosis of primary appendix adenocarcinoma following treatment methods.

Material and method: Patients diagnosed with pure mucinous adenocarcinoma between 2008 and 2019 were retrospectively analyzed. Demographic data, histopathological features, existence of recurrence and adjuvant chemotherapy were recorded. Relapse free survival or death was noted. The last control dates were recorded.

Results: A total of 34 patients included in the study. Demographic characteristics of the patients are shown in the table. The median age of diagnosis of patients is 50.4 (19-76). Total of 18 patients were female (%52.9), and 16 (%47.1) patients were male. Pathologically, the majority of patients were mucinous type neoplasm (%82.4). Lymph node excision was performed in 24 (70%) patients and lymph node involvement was detected in 17 (50%) patients. Right hemicolectomy and optimal debulking were performed in 26 (%76) patients and 21(%61) patients, respectively. The majority of patients were stage 4 (79%). A total of 14 (%41) patients had been treated with cytoreductive surgery and HIPEC. PMP and acute appendicitis was detected in 18 and 6 patients respectively. A total of 19 patients (55.5%) received chemotherapy after cytoreductive surgery. Recurrence or progression developed in 12 patients. Median overall survival could not achieve (5 patients died). Median progression free survival was 35 months. Median PFS was 20 months in patients with colonic adeno cancer and median PFS was 41 months in patients with mucinous type neoplasms ($p = 0.34$).

Discussion: Management of primary appendix cancer is complex and depends on histologic features and extent of disease. Low-grade appendix mucinous cancer is slow progressive disease. Despite complete cytoreduction recurrence of mucinous appendix carcinoma is common. McConnell YJ et al recently published that PFS was 38.1 for patients' low grade and 21.6 months for high-grade disease. Median overall survival at 5 years is %75 to 81 and 45% to 65% for low-grade and high-grade (2). In our study, the median PFS was 35 months and was similar to the study.

Keywords: appendix, mucinous cystadenocarcinoma, pseudomyxoma peritonei

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Table 1.

patients	N	%
Woman	18	52.9
Men	16	47.1
histopathology		
-colonic adenocancer	5	14.7
Grd1	1	
Grd2	2	
Grd3	3	
- mucinous neoplasm	28	82.4
Grd1	24	85
Grd2	1	3.6
Grd3	3	10.7
Operation		
- Right hemicolectomy	26	76.5
- Optimal debulking	8	23.5
TNM		
-T1	1	2.9
-T2	4	11.8
-T3	4	11.8
-T4	24	70.6
Lymph node excision		
Yes	24	70.6
No	10	29.4
-N Pozitif	17	50
-N negatif	6	23
Stage 1	3	8.8
Stage 2	3	8.8
Stage 3	1	2.9
Stage 4	27	79.4
-M1a	24	70.6
-M1b	3	8.8
Surgical border		
-R0	25	76.5
-R1+	8	23.5
HİPEC +	14	41.2
PMP	18	52.9
Acute appendicitis	6	17.6

OP-017

THE ASSOCIATION BETWEEN POST-PROGRESSION SURVIVAL AND CLINICAL CHARACTERISTICS OF PATIENTS WITH METASTATIC COLON CANCER

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Colorectal cancer is one of the most common causes of cancer deaths. Factors affecting post-progression survival, especially have an impact on overall survival. In this retrospective study, we aimed to determine the factors affecting survival after progression in patients with metastatic colon cancer.

Our study included patients who were admitted to medical oncology clinic of Trakya University between January 1, 2010 and December 31, 2017. We retrospectively evaluated patients who had at least two series of chemotherapy with metastatic colon cancer followed by best supportive care due to disease progression.

Eighty-seven patients (36 females, 51 males) aged between 37 and 79 years were included in the study. The median progression free survival was 10 weeks (95% lower-upper limit 8.1-11.8). Overall survival was significantly correlated with post progression survival

($r = 0.514$, $p < 0.001$). Median overall survival was 21.3 months (95% lower-upper limit 18.1-24.6).

In conclusion, it was shown that age 60 and over at the time of diagnosis, ECOG 0-1, CEA level less than 5 ng / mL, control of the disease with 1st line chemotherapy or objective response could prolong post progression survival. In addition, liver metastasis, CEA level above 5ng / mL and failure to control the disease with second line chemotherapy were shown to shorten median overall survival.

Keywords: Colorectal cancer, post-progression survival, overall survival.

OP-018

OUTCOMES OF PATIENTS WITH RESECTED PANCREATIC DUCTAL ADENOCARCINOMA

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Aim: Pancreatic cancer usually presents with advanced disease, only 20% of the patients are operable at initial diagnosis. Overall survival remains poor, with an 80% recurrence rate. In this study, we examined clinical features and outcomes of our patients with resected pancreatic cancer.

Method: Surgically resected PDAC patients treated at Hacettepe University Oncology Hospital between 2005 and 2017 were included in the study. Patients' demographics, comorbidities, clinical and pathological features, treatment outcomes were collected retrospectively from patient files. Overall survival (OS) and disease-free survival (DFS) were determined with Kaplan Meier analysis and predictors of outcome with Cox regression analysis.

Results: One hundred thirty patients were included in the study. Median age was 61.0 and 66% were male. Patient characteristics are shown in Table 1. One hundred and four patients (80%) received adjuvant chemotherapy and 66 patients (50.8%) received radiotherapy. Median OS was 21.6 months and DFS was 11.8 months. Univariate analysis showed age ≥65 years, disease stage, R1 resection, vascular invasion, post-operative CA 19-9 level and presence of thrombosis at initial diagnosis to be associated with DFS and OS. Multivariate analysis showed that higher disease stage (HR 4.23, 95%CI 1.98-9.05), high post-operative CA19-9 level (HR 2.49, 95%CI 1.42-4.37), and presence of thrombosis at initial diagnosis (HR 1.66, 95% CI 0.94 – 2.93) were independently asssociated with worse overall survival. Significant predictors of DFS were higher disease stage (HR:3.16 95%CI 1.49-6.67), presence of vascular invasion (HR:1.96 95% CI 1.03-3.73) and high post-operative CA19-9 level (HR: 2.43 95%CI 1.38-4.28).

Conclusion: In this study, we have shown that beyond advanced disease stage, presence of vascular invasion, thrombosis at diagnosis and high post-operative 19-9 levels were associated with poor outcomes. These factors can be used in risk stratification and tailoring treatment.

Keywords: Pancreatic ductal adenocarcinoma, thrombosis, vascular invasion

Table 1. Patient Demographics and Baseline Characteristics

Age	61.0 (29,88)
Gender Male/Female	86 (66%) / 44 (34%)
Stage I	36 (28%)
Stage II	65 (50%)
Stage III	29 (22%)
CA 19-9 (median)	8 U/ ml
Tumor location Head	105 (81%)
Tumor location Body-tail	10 - 15 (8% , 11%)
Thrombosis at initial diagnosis	25 / 130 (19%)
R0 resection	95 / 130 (73%)
Adjuvant chemotherapy	104 (80%)
Adjuvant radiotherapy	66 (50.8%)

Poster Presentations

PP-01

PROGNOSTIC VALUE OF THE NEUTROPHIL-TO-LYMPHOCYTE RATIO PREDICTING SURVIVAL IN PATIENTS WITH METASTATIC PANCREATIC CANCER

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The predictive value of different prognostic biomarkers has been studied in various cancer types. Our study aimed to determine the degree of risk and prognostic significance of pre-treatment neutrophil-to-lymphocyte ratio (NLR) and carbohydrate antigen 19-9 levels in patients with metastatic pancreatic cancer (PC) and reveal its relationship with survival.

Clinical and laboratory data of 118 patients with metastatic PC at the time of diagnosis were retrospectively analyzed. Overall survival (OS) was calculated using the Kaplan–Meier method. Cox regression analysis was used to determine the prognostic factors affecting PC.

The mean age of the patients was 67 ± 9.57 years. The patients were analyzed during the follow-up period, and their median OS was 12 months (95% CI 9.73–14.26). According to ROC curve analysis, the cut-off value was 3.54 (AUC: 0.653, 95% CI 0.56–0.73, p=0.006) for NLR and 437 (AUC: 0.670, 95% CI 0.57–0.75, p=0.002) for CA19-9. There was a statistically significant difference between CA19-9 (p<000.1) and NLR (p<000.1) and OS. Multivariate Cox regression analysis revealed that NLR (HR=2.17, 95% CI 1.17–4.03, p=0.013) and CA19-9 (HR=1.81, 95% CI 1.08–3.03 p=0.022) were significant prognostic factors in OS analysis.

Pre-treatment NLR and CA19-9 levels were found to be reliable predictive markers for poor prognosis in patients with metastatic PC. Our findings revealed that NLR and CA19-9 levels can be used to predict the survival of patients with PC. We believe that our findings will shed light on the management of treatment protocols for patients diagnosed with metastatic PC.

Keywords: metastatic pancreatic cancer, neutrophil-to-lymphocyte ratio, carbohydrate antigen 19-9, prognostic factor

PP-02

THE IMPORTANCE OF SERUM THIOL LEVELS IN GASTRIC INTESTINAL METAPLASIA

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Aim: In human carcinogenesis, oxidative stress plays a major role. Serum Native Thiol (NT), Total thiol (TT), and Disulfide (SS) are important components of the natural antioxidant system and they protect human cells against oxygen radicals. Preliminary studies showed that, they may play a role of gastric cancer. We conducted this prospective study to investigate the possible importance of thiols in gastric intestinal metaplasia for understanding of starting development of carcinogenesis.

Patients & Methods: A total of 58 subjects, including 29 patients with intestinal metaplasia and 29 control groups were included in this non-randomized prospective case-control trial. Fasting venous blood serum samples from participants were stored at -80 °C for equal time and, TT, NT and SS levels were measured spectrophotometrically. The differences in serum TT, NT and SS levels between the groups and their relationship with demographic data were compared.

Results: Age was found matched between study and control groups. In study group, NT levels were found significantly lower than healthy controls, while TT levels were not found significantly different compared to the control group. SS levels were found significantly higher in study group than healthy controls. Moreover, the ratios of disulphide/native thiol (p<0.001); disulphide/total thiol ratios were higher in study group than healthy controls (p<0.001) and native thiol/total thiol ratios (p<0.001) were found significantly lower in study group compared to the control group (Table 1).

Conclusion: Intestinal metaplasia is closely associated with serum thiol levels.

Keywords: gastric cancer, intestinal metaplasia, thiol levels

Table 1. Demographic and laboratory results of study and control groups

	Study group	Control group	p value
Age mean±SD	57.5 ±11.2	58.5±4.7	0.648
Gender (F/M)	13/16	17/12	0.744
Native thiol levels (umol/L) mean± SD	160±85	265±55	<0.001
Total thiol levels (umol/L) mean± SD	339±123	302±57	0.148
Disulfide levels (umol/L) mean± SD	89.7±61	18.6±4.7	<0.001
Disulphide/native thiol ratio	103±170	7.2±2.2	<0.001
Disulphide/total thiol ratio	25±12.3	6.3±1.6	<0.001
Native thiol/total thiol ratios	50.1±24.5	87.4±3.2	<0.001

PP-03

QUERCETIN REDUCES CELL DYSPLASIA AND OXIDATIVE STRESS AND ABROGATES MULTIORGAN CARCINOGENESIS IN RATS BY REDUCING

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The impact of quercetin (Qr), a polyphenolic flavonoid was evaluated in multi-organ carcinogenesis induced by short term 1,2-dimethylhydrazine (DMH) and arsenic trioxide (AS2O3) in rats.

Rats exposed to DMH (20 mg/kg/week *s.c.*, 2 times) asssociated to AS_2O_3 (3 mg/kg/week *i.n.*, 13 times) resulted in high grade of cell dysplasia, and up expression of cytokeratin 7/cytokeratin 20 (CK7/CK20), indicating active cellular proliferation and pulmonary adenocarcinoma ($p < 0.001$). Colon toxicity resulted in 100% incidence in both ACF/MDF and polyps formation and

high grade of epithelial dysplasia with loss of mucin producing cells ($p < 0.01$).

Treatment with low-dose quercetin (20 mg/kg/ daily *i.p.*) starting at week 8 post carcinogenesis induction, reduced the number of ACF/MDF and polyps, and restored redox imbalance by reducing the rate of lipid peroxides (MDA, 63% and 80%) and enhancing reduced glutathione (GSH, 65% and 194% $p < 0.001$), which turn back to control levels in both target organs.

Thus, low dose quercetin displayed potent protective effect in both the initiation and promotion stages through the control of oxidative stress by commuting the antioxidant imbalance in parallel to the inhibition of preneoplastic lesions development.

Keywords: Aberrant crypt foci, arsenic trioxide, 1.2-dimethylhydrazine, quercetin, CK7/CK20

PP-04

RECTUM CANCER WITH PITUITARY METASTASES

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Introductıon: Colorectal cancer (CRC) is the second leading cause of cancer-related deaths in the United States. One in 5 patients have metastatic disease at the time of presentation.The first site is usually the liver, followed by the lungs, bone etc.However, the pituitary gland is an uncommon site of metastasis.Here we report the case of an adult man, who developed pituiarity metastases from rectal cancer approximately 5.5 years after diagnosis.

Case Report:50 years old man with no known diease or drug use history. An abdominal pain started in September 2013 followed by rectal bleeding,colonoscopy was performed in 17.12.2013. The biospy result: rectum adenocancer – moderately differentiated .Total body computed tomograhpy report : Diffuse consantric tumoral wall thickening at the distal part of sigmoid colon, seroza overrunning in the peripheral adipose tissue and multiple milimetric lymph nodes, 2 piece of 7mm-6mm hypodens metastatic lesions in the liver, multiple non spesific milimetric nodules(largest one is 5mm) in the lungs.

6 cycles of Oxaliplatin–capecitabine–bevacizumab was given between 14.02.2014-11.06.2014. PET/CT(09.07.2014): Lesion that makes a thickening wall of 3 cm in diameter and luminal contraction in sigmoid colon with SUV max.:6.7 and all other sites was complete response.

04.08.2014 Anterior resection+hartman colostomy operation was performed. Postoperative pathology: colon,resection; after neoadjuvant therapy, adenocancer+reactive lenf nodules (0/7) T3N0M0. 6 cycles of additional chemotherapy was planned which ends on 01.2015. PET/CT and abdominal MR were taken. No signs of residual disease or metastatic lesion were reported. The patient followed through 3 months periods.

During routine control in 09.04.2019 the patient described newly developed weakness. PET/CT: multiple hypermetabolic nodules in the lungs, the largest of them is 1.7cm in diameter.22.05.2019 right upper lobectomy was performed and the pathology was colorectal adenocancer metastasis. At the same time secondary adrenal insufficiency was diagnosed, levothyroxine 50mcg and methylprednisolon 32 mg per day had been given by endocrinology. The patient was also describing visual field defect and decrease in visual acuity.Cranial MRI detected a mass in pituitary area.07.08.2019 partial resection surgery pathology report: colon adenocancer metastasis.

On 01.10.2019 patient presented with bilatarel total amourosis. Cranial MRI: resudial mass 2.7cm in diameter which is in the sellar – suprasellar area, invaded the pituitary gland and cause edema in chiasma opticum.Cranial radiotherapy was performed, bilateral total amourosis remains. Treatment of patient still continues.

Discussion : The widest review of literature about pituitary metastases includes 9 cases of primary localization in colorectal site.These data confirm the rarity of our report.The majority of pituitary metastases are clinically silent.Bilateral amourosis is an unusual symptom which happens in our case.

Keywords: rectum cancer, pituitary metastases, bilateral amuorosis

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PP-05

IMPACT OF GA-68 PSMA PET/CT DIAGNOSED WITH HEPATOCELLULAR CARCINOMA

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Introduction: In this study, we aimed to detect the presence of increased Prostate Specific Membrane Antigen (PSMA) uptake by Ga-68 Prostate Specific Membrane Antigen (PSMA) PET/CT in patients diagnosed Hepatocellular Carcinoma (HCC) to introduce new treatment strategies HCC in the future.

Materials and Methods: Ten Child Pugh-A and 2 Child Pugh-B HCC patients (11 M, 1 F; mean age 61.4±5.7 [range 54- 75] years) were enrolled in this prospective study. All patients underwent PSMA-PET/CT scan and F-18 fluorodeoxyglucose (FDG) PET/CT scan which performed within 30 days of each other. Magnetic resonance imaging (MRI) was performed to all patients before included in the study. The maximum standardized uptake value (SUVmax) was measured for primary tumors, lymph nodes and distant metastases in PSMA-PET/ CT and FDG-PET/CT. In addition to SUVmax, tumor-to-liver (T/L) and tumor-to-background (T/B) taken into consideration Liver tumors

defined on PET/CT scans compared with MRI. Histopathology confirmed was made in 6 patients.

Results: In PET/CT imaging, increased PSMA uptake was observed in 9 patients, mild uptake was observed in three patients (mean±SD SUVmax 23.6±8.9). Five patients tumors were non-FDG avid, three patients showed mild FDG uptake and four patients showed increased FDG uptake (mean±SD SUVmax 8.1±4.1). PSMA uptake mean ratio for T/B was significantly higher in primary tumors compared with FDG (p = 0.001). However, PSMA uptake mean ratio for T/L in primary tumors was higher than FDG, no significant difference was found (p=0.14). In our study group, 41 (97.6%) lesions were detected with PSMA-PET/CT, while FDG PET/CT detected only 21 (50%) lesions. Six (50%) patients had high-AFP-secreting tumors (>200 ng/mL) and 6 (35%) had low-AFP-secreting tumors (<20 ng/mL) tumors. We did not find a relationship between AFP levels and PSMA or FDG uptake. Two patients had abdominal metastatic lymph nodes in PSMA-PET/ CT and one of them was non-FDG avid. Abdominal metastatic lymph nodes uptake in PSMA-PET/ CT was higher than FDG PET/CT in one of 2 patients. On the other hand, three patients had distant metastasis and these lesions had higher SUVmax values in FDG-PET/CT than PSMA-PET/CT.

Conclusion:HCC had a considerable PSMA uptake in PSMA-PET/CT. We think PSMA-PET/CT may have a role in the diagnosis and staging of HCC over FDG PET/CT. In the light of these finding, increased PSMA uptake can be a new therapeutic target for HCC.

Keywords: HCC , PSMA PET/CT, FDG PET/CT

PP-06

DOXORUBICIN IMPROVES 1,2-DIMETHYLHYDRAZINE COMBINED TO ARSENIC TRIOXIDE INDUCED EARLY MULTI ORGAN CARCINOGENESIS

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Background: The chemo-preventive potential of doxorubicin (Dox, Anthracyclin) has been studied in a short-term bioassay in early multi-organ carcinogenesis.

Methods: Females mice (10/group) were administrated with 1,2-dimethylhydrazine (DMH, 20 mg/kg, s.c) combined to arsenic trioxide (As2O3, 3 mg/kg, i.n.) once a week each, 2 and 5 times, respectively. Thereafter, mice were given NaCl (control) or doxorubicin (Dox 3 mg/kg i.p.) once a week, 3 times. After mice sacrifice, target organs including colon and lung were harvested and analyzed.

Results: DMH combined to As2O3 resulted in aberrant crypt foci (ACF) formation in colon mucosa and lung oxidative inflammation. Dox treatment had no significant effect on body and organ weight, food and water consumption. However, it markedly improved the histological index of inflammation, and inflammatory cells infiltrate in target organs, and reduced the number and multiplicity of ACF.

Compared to model group, the level of lipid peroxides which were enhanced (p <0.05) by 73% and 75% in DMH+ As2O3 group, was rebalanced to 51% and 64 % of control by Dox treatment, in colon and lung, respectively.

Similarly, colon and lung superoxide dismutase activity (SOD; index of antioxidant pool) was reduced by 88% and 60% of control in model group. Dox restored SOD by 39 % and 529%, respectively.

Conclusion: Dox exerts its chemo-protective effect in early phase of multi-organ carcinogenesis, in part by restoring redox imbalance in colon and lung, selectively targeted by DMH and As2O3.

Keywords: Arsenic trioxide ; 1,2-Dimethylhydrazine ; Doxorubicin ; Multiorgan carcinogenesis; Oxidative stress

PP-07

WE AGREE ON HER2 INHIBITION; IS "DUAL HER2 TARGETED THERAPY" MANDATORY?

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Introduction:HER2 amplification is found in approximately 3% to 4% of all cases of mCRC.Most of these amplifications are found in RAS/BRAF wild-type patients.Two major studies have looked at this, HERACLES-A and MyPathway.Both of these studies looked at dual blockade to target HER2—trastuzumab plus lapatinib in HERACLES-A and trastuzumab plus pertuzumab in MyPathway.

Case: A 53-y/o female, presented on Sept 2014 with complaints of abdominal pain, abdominal distension, constipation and vomiting.CT scan revealed thickening and total occlusion of the sigmoid colon wall and multiple liver metastases.The patient was diagnosed as ileus and underwent emergency surgery. Post-op pathology was reported as moderately differentiated adenocarcinoma T4N1M1 colon cancer. No mutations K-RAS / N-RAS / BRAF and tumor was MSS.The patient was started on 5-FU and Oxaliplatin in combination with Bevacizumab. She had partial response on this regimen after 10 cycles.Therefore, the treatment was continued with maintance Capecitabine and Bevacizumab combination therapy for 22 months.On March 2017, PET-CT scan revealed progressive disease and multiple new pulmonary paranchyma nodules and intraabdominal lymph nodes metastases. She began therapy 5-FU and Irinotecan in combination with Cetuximab. PET-CT scan, at 3,6 and 9 months, showed stable disease but at 12 months PET-CT scan revealed progressive disease at liver lesions. On Nov. 2017, she was then started Regorafenib.At 4 months, she reported grade 3 fatigue and anorexia. Regorafenib treatment was terminated and she was included in TAS-102 trial. PET-CT, at 3 months, showed stable disease but at 6 months PET-CT showed increased size and number of metastatic lesions.The pathology specimens was sent Medical Biology Department for NGS(next generation sequence) test.NGS test revealed that ERBB2 high amplification ratio(23,2 fold amplification).At this stage, the patient received all standard treatment options and developed malignant biliary stenosis.Percutaneous biliary drainage and biliary metallic stent implantation was performed by interventional radiology team. The improvement in the cholestatic markers was suboptimal due to widespread liver metastases.Trastuzumab treatment was started.Lapatinib treatment was not administered in the first stage because liver function tests were abnormal and ECOG PS was 2. After 4 cycles of monotherapy trastuzumab, dramatic improvement was observed in the clinic and laboratory.Lapatinib was added to the treatment when the performance status recovered

and the patient experienced complete normalization of her CEA within 18 weeks.

Discussion:HER2-targeted therapy has revolutionized the management of HER2-positive breast cancer in both the adjuvant and metastatic settings.In the studies of her2 positive colon cancer cases, generally dual inhibition was applied. we tried to find the answer to the question of whether it works for monotherapy especially for poor performance status.

Keywords: colon cancer, precision medicine, ERBB2, HER2, trastuzumab, lapatinib

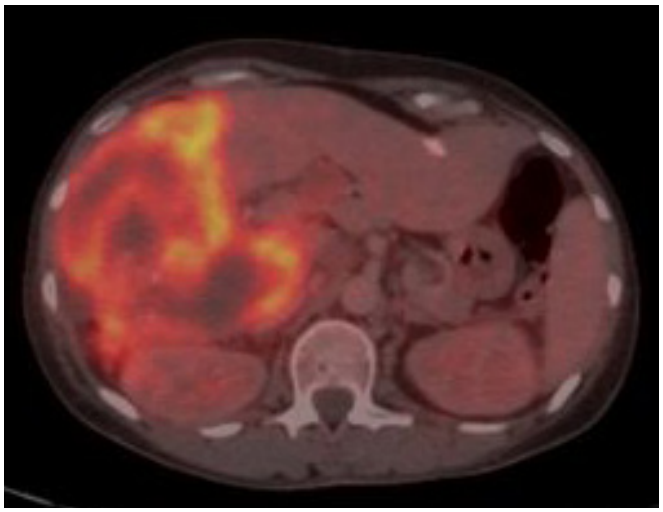

Figure 1. Description of the Figure: PRE-TX PET-CT

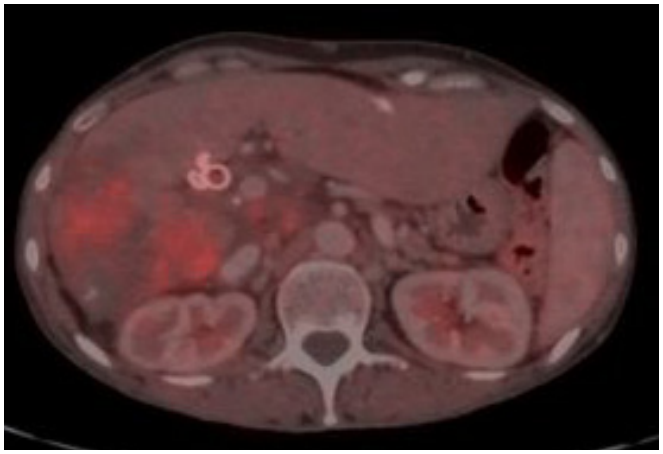

Figure 2. Description of the Figure: POST-TX PET-CT

Tables 1. Laboratory parameters

	Pre-tx (18.06.19)	*After x4 Trastuzumab*	*After +x2 trastuzumab + lapatinib (01.01.19)*
T/D BIL(mg/dl)	12,4/10,8	1,38/1,08	0,44/0,28
ALP/GGT(U/l)	497/353	415/145	239/137
AST/ALT(U/l)	112/34	78/42	34/18
LDH(U/l)	770	308	165
CEA(mcg/l)	229	113	5,4
CA19-9(U/l)	2571	1038	44
CA125(U/l)	-	416	39

PP-08

RETROSPECTIVE EVALUATION OF PLASMA SERUM 25-HYDROXYVITAMIN D AND RISK OF BREAST CANCER IN STAGES GROUPES

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Aim: This study aimed to evaluate Plasma Serum levels of 25-hydroxyvitamin D in patients with breast cancer .

Materials and Methods: The records of 63 patients with Breast cancer treated between 2014 and 2017 were retrospectively reviewed. The median age is 53.7 years (range 21-79 years , std. Deviation 11.849). According to the AJCC 2010 staging system, 10 patients had stage Ia, 18 had stage IIa, 12 had stage IIb, 15 had stage IIIa,2 had stage IIb and 6 had IIIc disease. The most common histopathologic type is infiltrative ductal carcinoma (n = 46), followed by infiltrative lobular carcinoma (n = 6) and Mixed type (n = 5). Molecular subtypes approximated by receptor status included Luminal A 50 (%79.4) ,Luminal B 3 (%4.8) ,Basal like 4 (%6.3) and Her 2 Neu 6 (%9.5) . Patients were treated with 3 different treatment protocols: 55 (87.3%) patients received postoperative adjuvant chemotherapy and radiotherapy, 7 (%11)patients received Neoadjuvant chemotherapy and postoperative radiotherapy and 1 (1.6%) patients received only radiotherapy. Modified Radical Mastectomy and Axillary LN Dissection was performed for 28 (%44.4) patients and Breast Conserving Surgery for 35 (% 55.6). All patients were treated with conformal techniques and standard fraction doses. we conducted a measurement of vitamin D levels to investigate whether vitamin D levels affect the risk of developing breast cancer or affects the course of the disease.

Results: The mean Plasma Serum levels of 25-hydroxy vitamin D is 28.31 (range 4.10-92.7 years , std. Deviation 18.481). The present findings of Statistical analysis showed that there wasn't a significant difference in Plasma Serum levels of 25-hydroxyvitamin D basede on age, stage, histopathologic type, tumor localization , Molecular subtypes and treatment protocol .The following table shows the distribution of vitamins according to the stages.

Conclusion: In our study, Plasma Serum levels of 25-hydroxy vitamin D , which occurs in cancer patients, has been need to be monitored independently. If the number of patients is too high, it may change the results of the measurements and evaluations rather than the spot value. Additional prospective randomized clinical trials are necessary to clearly determine the optimal results.

Keywords: Breast Cancer, 25-hydroxyvitamin D