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Aims & Scope

Journal of Oncological Sciences (JOS) is the official journal of Turkish Society of Medical Oncology. JOS is an international multidisciplinary oncology journal, which publishes high quality original research, reviews, short communications (as letters), case reports and editorial comments on basic and preclinical cancer research, translational oncology, clinical oncology - including medical oncology, pediatric oncology, radiation oncology, surgical oncology, therapeutic radiology and cancer epidemiology and prevention.

Papers will be submitted in submission web site. Editorial office will rapidly review papers and those of insufficient quality will be returned to the author 3 weeks, while those with sufficient priority will be passed to external review.

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JOS is published every 4 months (total of 3 issues per year).

Multiple Primary Tumors: Single Center Experience

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ABSTRACT

Introduction: Survival of cancer patients has improved with developments in oncological diagnosis and treatment fields. Likelihood of secondary malignancies has increased as a result of longer follow-up periods and administered chemotherapies and radiotherapies. Multiple primary tumors are pathologically defined, distinct entities that develop synchronously or metachronously in the same patient. In this study, we aimed to investigate ethiological associations of multiple primary tumors as well as to make preventive recommendations for clinicians and to share the experience of our clinic.

Materials-Methods: Data regarding clinicopathological features of patients with synchronous or metachronous multiple primary tumors who were followed up in the Medical Oncology Division of Marmara University School of Medicine between 1973 and 2019 were obtained retrospectively from their files.

Results: The study included 152 patients, 97 of whom (63.8%) were male. Median duration of follow-up was 47 months (Interquartile range:18.8-93.5). In the final analysis, 62 patients (58.7%) had died. Median overall survival (OS) of all patients was 140 months (95% CI, 96.5-183.5). Median OS of patients with metachronous and synchronous patients were 159 (95% CI, 121.24-196.75) and 43 months (95% CI, 8.38-77.16), respectively ($p=0.005$). Median ages at diagnosis of first and second tumors were 60 (Range:12-85) and 63 years (Range:28-87), respectively. At the time of first tumor diagnosis, median age was 58 years in females, whereas it was 64 years in males.

Of all patients, 138 (90.8%) had two, 13 (8.6%) had three and 1 (0.7%) had four primary tumors. Synchronous tumors were diagnosed in 58 patients (38.2%). In metachronous tumors, median time to diagnosis of second tumor was 50 months (Interquartile range:24-103). 92 patients (60.5%) had a history of smoking; 79 of whom are male and 13 are female. 24 patients (15.8%) had a history of alcohol intake and 62 had a history of cancer in a first-degree relative. Highest frequency of multiple primary tumors was in Black Sea Region. Most frequent tumors at the time of first diagnosis were breast (22 patients,14.5%) and lung cancer (19 patients,12.5%). However most frequent tumors at the time of second diagnosis were lung cancer(33 patients, 21.7%) and colorectal cancer(23 patients 15.1%). Most frequently observed tumor pairs (primary tumor- second tumor) in women were breast cancer-gynecologic cancer (10 patients, 18.1%) and in men were lung cancer-urologic cancer (10 patients, 10%)(Table 1).

Conclusions: Multiple primary tumors are encountered increasingly in clinical practice. Screening of patients having high risk of developing secondary tumors should start as soon as possible. Cancer patients should be encouraged to continue lifelong follow-ups.

Table 1

Most common cancer types and pairs according to gender.

Gender, n	Cancer	n(%)	Cancer Pairs	n(%)
Female,55	Breast cancer	18(32.7%)	Breast-Gynecologic	10(18.1%)
	Endometrial cancer	7(12.7%)	Breast-Colorectal	8(14.5%)
	Colon cancer	6(10.9%)	Gynecologic-Gynecologic	4(7.2%)
Male,97	Lung cancer	17(17.5%)	Lung-Urologic	10(10.0%)
	Head and neck cancer	14(14.4%)	Lung-Head and Neck	8(8.2%)
	Bladder cancer	13(13.4%)	Urologic-Urologic	8(8.2%)
			Lung-Colorectal	6(6.1%)

Prognostic Significance of Distant Metastasis Free- Interval in Patients with Relapsed Melanoma Treated with Braf With or Without Mek Inhibitors

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ABSTRACT

Introduction: melanoma has a rapidly increasing incidence and mortality rate globally. The evolution of novel targeted therapies represents a breakthrough in the history of melanoma treatment. Identifying the prognostic factors associated with long-term response and survival is of crucial clinical significance to optimize patient management. Most of these data have been derived from large cohorts. Systemic therapies might have negated the prognostic effect of baseline factors, such as disease free interval (DFI).

Aim: this retrospective cohort study assessed the prognostic significance of distant metastasis-free interval (DMFI) in patients with relapsed BRAF-mutant melanoma treated with BRAF with or without MEK inhibitors (BRAFi±MEKi).

Methods: patients with a DMFI of up to 24 months were compared with those with DMFI of more than 24 months, with regard to their postrelapse progression-free survival (PR-PFS) and overall survival (PR-OS).

Results: in total, 109 patients were included in the study. Median DMFI was 25.3 (range: 3.4-188.2) months. Median PR-PFS in patients with DMFI of more than 24 months was 7.9 months [95% confidence interval (CI): 6.2-9.7] compared with 5.4 (95% CI: 4.2-6.7) months of those with shorter DMFI (P=0.016). Median PR-OS was 15.6 months (95% CI: 13.6-17.6) in patients with DMFI of more than 24 months and 12.0 months (95% CI: 9.0-15.0) with DMFI of up to 24 months (P=0.289). Multivariate Cox regression analysis showed that DMFI was independently and strongly associated with improved PR-PFS (adjusted hazard ratio=3.21, 95% CI: 1.78-5.77, ≤24 vs. >24 months) and longer PR-OS (adjusted hazard ratio: 2.09, 95% CI: 1.15-3.80, ≤24 vs. >24 months).

Conclusions: the present cohort study is one of the first to confirm the association of DMFI of more than 24 months with an indolent disease course, as shown by longer PR-PFS and PR-OS, in patients with relapsed stage IV melanoma treated by BRAF inhibitor/MEK inhibitor.

Association of Immunotherapy Toxicity with Clinical Benefit and Response in Melanoma Patients

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ABSTRACT

Introduction: immunotherapy is major step in metastatic melanoma (MetM) treatment, substantially improving responses and overall survival, but can be associated with severe toxicity. However there are limited data associating toxicity to response.

Aim: the aim of the study was to detect association between toxicity and response to immunotherapy in patients with MetM.

Methods: all patients suffering MetM treated at the first Department of Medical Oncology, the Metropolitan Hospital of Athens, Greece, between 2011-2018 were evaluated for toxicity, clinical benefit and response to immunotherapy.

Results: a total of 135 MetM cases were evaluated (53 males). Mean age was 44 years (19-90). Evaluation included 79 patients with cutaneous melanoma, 15 with mucosal, 5 with ocular and 1 with primary of the brain. Grade (G) 3-4 toxicity developed 12 cases of 27 (44%) receiving Nivolumab: 4 thyroiditis, 2 hypophysitis, 2 transaminemia, 2 colitis, 1 adrenal toxicity and 1 arthritis. Similarly, 14 of 41 (34%) receiving Pembrolizumab: 4 colitis, 2 thyroiditis, 2 transaminemia, 2 pneumonitis, 1 hypophysitis, 1 myelotoxicity, 1 myasthenia and 1 renal insufficiency. Among 56 receiving Ipilimumab 9 (16%) developed G 3-4 toxicity: 4 colitis, 2 hypophysitis, 1 bowel perforation, 1 transaminemia and 1 skin rash. Among 11 receiving Ipilimumab/Nivolumab combination 8 (72%) developed G 3-4 toxicity: 3 transaminemia, 4 colitis and 1 skin rash. In total, of 135 cases receiving immunotherapy 43 developed G 3-4 toxicities (32%). Among them clinical benefit (response and stability) was observed in 27 (63%) and response in 20 (47%), while among the 92 with grade 0, 1 or 2 toxicities, clinical benefit was observed in 36 (39%) and response in 6 (7%). Clinical benefit was significantly higher among those with G 3-4 toxicity ($p=0.003$), while responses were higher, but not significantly ($p=0.057$).

Conclusions: immunotherapy may cause severe toxicity, however, in the present population was associated with better response and significant clinical benefit.

The Effect of Hpv on Treatment of Cervix Uteri Cance

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ABSTRACT

Objective: Human Papilloma Virus (HPV) causes more than 90% of patients with cervix uteri carcinoma. The distribution of HPV types in squamous cervical uteri carcinoma in patients admitted to our clinic and its effect on radiotherapy response were evaluated.

Methods: 150 local advanced patient files admitted to the Radiation Oncology clinic of Okmeydanı Training and Research Hospital between 2015-2018 were examined. All patients underwent intracavitary radiotherapy following external radiotherapy with cisplatin 40 mg / m² concomitant weekly. After the presence of HPV in paraffin blocks of 57 patients, type determination was performed.

Results: The mean age of the patients was 53 (53-80) HPV was found in 33 of 57 squamous cervical uteri cancer patients. HPV16 (33%) in 19 patients, HPV18 (12%) in 7 patients, HPV45 (0.03%) in 2 patients, HPV 52 (0.01%) in one patient and HPV31 (0.01%) in one patient were detected. HPV was not detected in 24 patients (42%) and three patients had multiple HPV types

Local control could not be achieved in four patients (7.02%). Metastasis rate was 75% in 3 patients without local control.

No statistical difference was found between HPV positive and negative groups in age, stage distribution, mean tumor volume, smoking, external radiotherapy and brachytherapy dose, treatment and follow-up time, and metastasis formation.

In the HPV negative group, the presence of metastasis was found to be 2.23 (1.35-3.75) and the risk of death RR: 2.8 (1.19-3.63) times more than the positive ones. HPV negative group has more systemic spread

Discussion: HPV causes cancer formation by inhibiting tumor suppressed genes in the cell and inhibiting DNA repair pathways. However, response rates are not similar in HPV positive patients. HPV negative cancer development was found to be higher in our country than in the literature (42%).

In patients with HPV negative cervix uteri cancer, cell damage caused by concomitant chemoradiotherapy is not an adjunct factor such as the inhibition of DNA repair of HPV oncogenes, so the cancer cell may have the opportunity to repair itself.

Bilateral Testicular Metastasis of Prostate Adenocarcinoma: Case Report

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ABSTRACT

Prostate cancer is one of the most common metastatic solid organ tumors to testis, however testicular metastasis, especially bilateral testicular metastasis, is rarely seen. We aimed to present this rare case report with clinical and radiological imaging methods and literature. A 68-year-old patient with prostate cancer presented with complaints of swelling in the testis. Physical examination and radiological imaging revealed testicular metastasis of prostate cancer. As a result, we believe in the case of active complaints of the patients with prostate cancer or if there is a mass in the testicle, we should evaluate with scrotal ultrasonography at the time of diagnosis and follow-up, and testicular biopsy or orchiectomy should be performed if necessary.

Keywords: Bilateral, metastasis, prostate cancer, testis

1. INTRODUCTION

Prostate cancer is one of the most common solid organ malignancies in males and often metastasizes to iliac lymph nodes, bone, lungs, rarely testes and other genitourinary system [1,2]. Among the primary foci of testicular metastasis, lung, prostate, melanoma and gastrointestinal system tumors are the most common. Prostate cancer has frequently been reported as unilateral testicular metastasis, but bilateral metastases have also been reported. Metastatic testicular tumors can be mixed microscopically with the testis seminoma because they retain the testicular parenchyma in the intratubular, intertubular and nodular pattern. Histopathological or radiological methods are used in the differentiation of primary and metastatic testicular tumors.

2. CASE REPORT

A 67-year-old male patient presented to our clinic with a complaint of hematuria. In the digital rectal examination, grade 1 nodular lesion was detected in the left testicle. PSA value was determined as > 100 ng / ml. The patient underwent prostate needle biopsy with transrectal ultrasonography. Pathology result; prostate adenocarcinoma gleason 9 (4 + 5).

The patient's abdominal computed tomography (CT) revealed a large number of metastatic lymph nodes with a central cystic-necrotic appearance were observed in the paraaortic area at the infrarenal level and conglomerates in both main and external iliac groups, in addition the largest lymph node at the external iliac groups at 52*30mm diameter. Bone scintigraphy revealed no metastasis. The patient was started on LHRH agonist + antiandrogen therapy. After the treatment, the patient's PSA values decreased to 3.94 ng/ml. The patient stopped taking MAB therapy for 1 year after receiving the maximum androgen blockade (MAB) for 2.5 years. After a 1-year unfollow-up period, an increase in PSA was observed in the patient's control, and widespread lymph nodes in the abdomen and bone metastasis in the T7 vertebrae were detected and docetaxel chemotherapy was initiated. After 3 cycles of docetaxel, the control abdomen MRI showed minimal progression and the treatment was completed with 6 cycles. After 6 cycles of treatment, because of progression in abdomen MR, enzalutamide treatment was started. After 3 month of therapy, abdominal MRI was performed. As the size of the lymph nodes in the abdomen increased and suspicious lesions were found in the right lower lobe of the lung, then cabazitaxel treatment was started.

After 3 cycles of treatment, because of the abdomen MRI revealed a lesion in the abdomen and pelvis with recurrent lesions, and LUTESIUM-177 PSMA treatment was started. 3 sessions were given. After the definitive progression was detected in all foci of PET, mitoxantron chemotherapy was started. While receiving mitoxantron chemotherapy, the patient presented to our clinic with painless mass in both testes and right groin pain in October 2018. Physical examination revealed a rigid mass in the upper lobe of the left testis and hydrocele in both testes. The patient's tumor markers (α -AFP, β -HCG) were within normal limits and the PSA value was 1761 ng / ml. In the ultrasonography, the patient had a 5x4 mm diameter lesion in the right testis and a hypoechoic lesion with a lobulated contour with a large size and rough calcifications of 11x10 mm in the left testicle. Because the patient had a history of malignancy and there was no significant increase in blood flow of the testis, the lesions were evaluated in favor of involvement.

Then abdominal MRI was performed to the patient. MRI is similar to USG, the lesions identified in both testes were contrasted and contrasted with T2 hypointense diffusion similar to lesions in the prostate. Axial T2 and T1 images showed hypointense in T2, isointense in T1, and no-limiting lesions were contrasted (arrows) (Figure 1-6).

The lesions in the testis were interpreted as metastasis because the primary disease was widespread metastatic, and the lesions in the testis had similar MR signal characteristics and the lesions were multiple. Bilateral inguinal orchiectomy was not performed because it did not change the treatment protocol. The current treatment of the patient was continued.

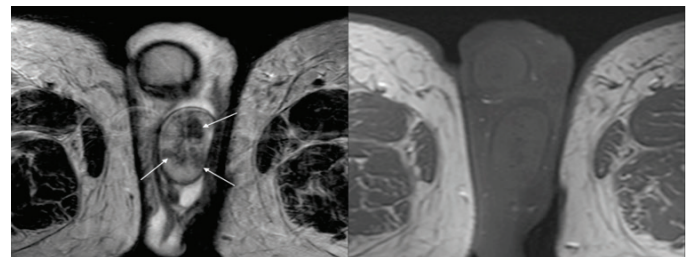


Figure 1: Prostate cancer testis metastasis T2 T1 sequence (indicated by arrow).

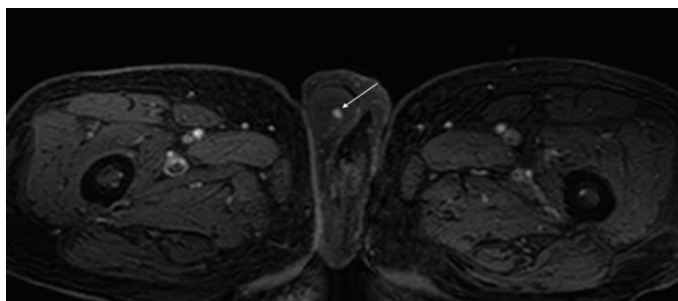


Figure 2: Metastasis of the right testis (indicated by arrow).

3.RESULTS

We believe in the case of active complaints of the patients with prostate cancer or if there is a mass in the testicle, we should evaluated with scrotal ultrasonography at the time of diagnosis and follow-up, and testicular biopsy or orchiectomy should be performed if necessary.

4.DISCUSSION

Although prostate cancer is a common malignancy that is common in men and has frequent metastasis, the metastasis of the testis is rare because of its blood-testicular barrier. Testicular metastasis of prostate cancer is rarely seen as bilateral metastasis [3,6]. Testicular metastasis of prostate cancer is frequently diagnosed after autopsy, since androgen blockade was not performed as often as it used to be [7]. The most common metastases to the testis are lung, prostate, melanoma and gastrointestinal tract tumors. In a study of 200 testicular tumors in 2000, only 14% of the patients had metastatic tumors. The primary focus was found to be prostate in 57.1%, seminal vesicle in 7.1%, lung in 13.6% and gastrointestinal system in 14.2% [5]. In another study examining 4012 autopsy data, only 0.1% of all metastatic cases were observed in testis. In the same study, primary focus prostate was found in 36% of the metastases in the testes [2]. The metastatic spread of prostate cancer is mediated by lymphovascular route [1]. The most common metastasis of the prostate carcinoma is to regional lymph nodes and secondary bone. Metastasis to the testes is rare, 4012 cases of autopsy data were examined in the study, only 4 of 193 prostate cancer cases were found to metastasize to the testis [2]. Although testicular metastasis of prostate cancer is not a common clinic, it is often seen as a non-palpable mass in the testis [9]. As in this case, it can also be seen as a painless testicular mass. The average life expectancy of patients with prostate cancer is 6-18 months due to poor prognosis and aggressive prognosis.

As in our patient, the reason why advanced stage prostate cancer metastasize to an atypical location such as testicles despite has been given 2.5 years hormonal treatment, then 1 year unfollowed period can be explained by the probability of resistant tumor cells metastasize to an atypical location. It should be kept in

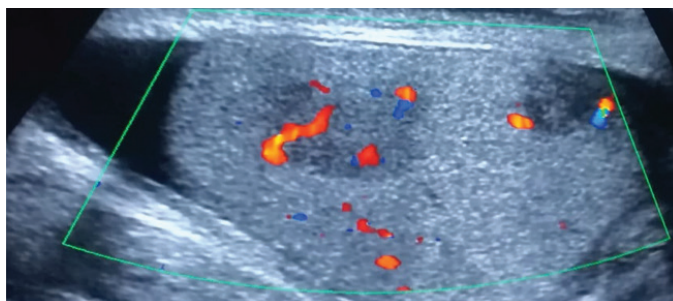


Figure 3: Doppler USG image of the lesions in the left testis.

mind that bone metastasis and peripheral organ metastasis as well as testicular metastasis may be rare in patients diagnosed as advanced stage prostate cancer at the time of diagnosis.

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The short-term surgical outcomes after colorectal cancer surgery in the geriatric patients

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ABSTRACT

Introduction

Colorectal cancer is the third most common cancer in men and the second in women, with 1,360,000 new cases diagnosed per year worldwide. The population is aging and more geriatric patients are undergoing colorectal surgery. Colorectal cancer most frequently occurs in the elderly: at the time of diagnosis 60% of patients are over the age of 70, and 43% are over 75. Decision-making about treatment for these older patients can be complicated by age-related physiological changes, impaired functional status, limited social support, and co-morbidities. This study aimed to investigate the short-term surgical outcomes that follow colorectal resection in elderly patients.

Materials and Methods

We identified 85 geriatric patients who underwent surgery for colorectal cancer at the Ali Osman Sonmez Oncology Hospital in Bursa, Turkey between 2014 and 2019. We compare the clinicopathologic features of colorectal resection with two groups of younger geriatric (YG, 65-79 years, n=73), and older geriatric patients (OG, ≥80 years, n=12). 60% (51) were male. Median age of all patients 73.18 years (range 65–91 years). 60% (51) were male. Median age of all patients is 73.18 years (range 65–91 years). The OG group has more tumors within the right-sided colon (75%, n=9). The local stage of the disease (T stage and number of positive lymph nodes) and the extent of lymph node dissection were comparable in both groups. Median harvested lymph node is 15.34 (range 4 - 44). Postoperative complications were presented at 29 (34%) patients (anastomosis failure, stroke, wound infection, pneumonia, ostomy necrosis etc.). OG group stayed in the hospital at least one day longer (p = 0.023). The 30-day postoperative mortality was 6.8% (n=5) among YG group and 25% (n=3) for the OG group. Postoperative complications and mortality tended to be higher in OG group (p = 0.008). The groups significantly differed in the type of surgery (elective vs. urgent surgery, p < 0.0001), ASA score (p < 0.0003) and rates of 30-day postoperative mortality (p < 0.0003).

Conclusion

Elderly patients require individualized treatment modalities, which take the extent of comorbidities and personal environment into consideration. So far, the cohort of geriatric patients has not been adequately considered in current guidelines; therefore, geriatric expertise is recommended to be able to make a better assessment of benefit-risk ratios, as age itself has no impact on the decision for therapy.

Keywords: colorectal cancer; colorectal surgery; geriatric

The authors declare that they have no conflict of interest.

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Neoadjuvant Chemotherapy Outcomes in Breast Cancer: A Single Institution

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ABSTRACT

Background:

Neoadjuvant therapy permits an early evaluation of the effectiveness of systemic therapy. Patients had a documented pathologic complete response (pCR) at surgery was prognostically significant. Which imaging methods is most specific for pCR that is unclear.

Patients And Methods:

We reviewed sixty-eight consecutive breast cancer patients treated with neoadjuvant chemotherapy. The following variables at the beginning of treatment were recorded for analysis: patient age, clinical stage, grade, HER-2, estrogen and progesterone receptor status and imaging modalities for using treatment evaluation.

Results:

Pathologic response was complete in 20 patients (30%) , near complete in 8 (11%) , partial in 18 (26%), and no reduction in 21 (30,9%). Radiologic response was complete in 17 patients, partial in 30, stable in 2, progression in 3. PET CT was used in 75%, MRI was used in 21% and USG was used in 4% for evaluating radiologic response. All patients who had progressed were diagnosed with triple negative breast cancer. 10 of complete response patients had her2 + disease, 5 had triple negative breast cancer.

Conclusion:

Radiologic imaging are not sufficiently sensitive for detecting complete response to be used in routine assessment of NACT.

Stem Cell Transplantation is a Treatment of Choice in Adult Patients with Medulloblastoma; Single Center, Retrospective Analysis.

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ABSTRACT

Introduction: Medulloblastom is the most common central nervous system embryonal tumor of childhood, accounting for 25% of all intracranial neoplasms. In contrast, adult medulloblastom is exceedingly rare and account for <1% of intracranial tumors. Current conventional management of adult medulloblastom includes maximum safe resection, followed by craniospinal radiation with or without concurrent adjuvant chemotherapy depending on clinical risk stratification. In metastatic high risk patients upfront chemotherapy can be chosen. And also autologous stem cell transplation can be chosen.

Tools and equipments: In Gulhane Research Hospital 8 adult medulloblastom patients had autologous stem cell transplantation as a treatment option, between November 2016 and October 2019. The data of those patients were analyzed retrospectively.

Findings: we choosed ICE regime for high dose chemotherapy before stem cell transplation. Maximum follow up time was 19 months and minimum follow up time was 2 months after stem cell transplantations. Only one patient developed a disease progression and died at 13 months. The others are alive and dont have disease progression. They are coming for routine follow up.

Conclusion: In patients with metastatic high-risk medulloblastoma, autologous stem cell transplantation is a good option with acceptable and manageable side-effect profile.

Treatment of synchronous bilateral breast cancer with different devices using arc-intensity modulated radiotherapy

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ABSTRACT

Purpose: Bilateral breast cancer (BBC) is very rare and constitutes 1-3% of all breast cancers. The aim of this study is to evaluate the clinical characteristics and dosimetric information of patients with BBC who underwent bilateral breast / chest wall and regional lymphatic field irradiation using helical tomotherapy (HT) and Elekta versa-HD (EV) devices.

Materials and Methods: Seven patients treated with HT and five patients treated with EV were included in the study. RT plans were evaluated based on dose-volume histograms. PTVmin, PTVmax, V95% and V105% for PTV, V20 and V5 for lung, D50, V25 and heart max dose for heart, V35 for esophagus were analyzed. SPSS program was used for the analysis and the difference between the treatment groups was calculated by Mann Whitney U test. $p < 0.05$ was considered significant.

Results: The median follow-up period was 19 months (range, 3-37), and the median age was 45 (range, 29-72). Radiotherapy (RT) was performed postoperatively in all but one patient who refused surgery. For two patients, radiotherapy were give one side chest wall(CW) for recurrence while opposite chetwall and regional lymphatics received radiotherapy for adjuvat treatment at the same time. Most of the patients (75% (n = 9)) had locally advanced stage and n = 5 patients underwent neoadjuvant chemotherapy. According to the hormone receptor status, there were luminal A in 8 patients, luminal B in 3 patients and triple negative disease in 1 patient. At the time of treatment, 2 patients had metastasis, one of them died at 37 months due to liver metastasis. Common acute side effects; radiodermatitis (n = 3), esophagitis (n = 5), and none were $\geq$ grad 3. Clinical characteristics and RT fields of the patients are shown in Table 1 and dosimetric information is shown in Table 2. The median values for lung V20 and V5 were 26% (20-29) and 64% (46-92) respectively. The median heart D50 was 8.6 Gy (4-19). The median PTVmin and PTVmax were 56 Gy (53-59) and 28 Gy (17-40) respectively. Pulmonary V5 was in favor of HT and PTVmin was statistically significant in favor of EV.

Conclusion: Although the number of patients treated is low and the follow-up period is short, both treatment options can be said to be effective and safe for synchronous bilateral breast / chest wall and regional lymphatic area RT of BBC.

Keywords: synchronous bilateral breast cancer, arc therapy, intensity modulated radiotherapy

Table 1

Clinical characteristics of patients.

	Age	Clinical stage	Surgery	Pathology	P Stage	Hormon status	Chemotherapy	RT	Last follow-up situation
1	40	R: T2N1 L: T2N0	R:MRM+AD L:MRM+AD	Invasive Ductal	R:T1N2 L:T1N1	ER+, PR-, HER2-	Neoadj:4 cyc AC + 12 w Taxotere	Bil CW+SCF+ Axilla	No recurrence/alive
2	59	R: T3N1 L:T3N0	R:MRM+AD L:MRM+AD	Mixed type	R:T3N0 L:T3N3	ER+, PR-, HER2-	Adj:4 cyc docetaxel	Bil CW+SCF+ Axilla+MI	No recurrence/alive
3	29	R: T0N0 L: T2N3c	R:MRM+AD L:MRM+AD	Invasive Ductal	R T0N1 L: T0N1 Mx	ER-, PR+, HER2-	Neoadj: 3cyc paclitaxel-herceptin 4 cyc AC	Bil CW+SCF+ Axilla+MI	Exitus
4	42	R: T2N0 L: T3N1 M1	R:MRM+AD L:MRM+AD	Invasive Lobuler	R: T2N0 l: T3N3	ER+, PR+, HER2-	6 cyc CAF+ Zolendronik Acid	Bil CW+SCF+ Axilla+MI	No recurrence/alive
5	35	R: TXN1 L: TXN1	R:BM+SLND L:MRM+AD	DCIS Invasive Ductal	R: T0N0 L: T2N1	ER+, PR+, HER2+	Neoadj: 4 cyc AC + Paclitaxel Herceptin	Bil CW+SCF+ Axilla+MI	No recurrence/alive

Table 1

Clinical characteristics of patients.

	Age	Clinical stage	Surgery	Pathology	P Stage	Hormon status	Chemotherapy	RT	Last follow-up situation
6	41	R: T1N1 L: T2N1	R:MRM+AD L:MRM+AD	Invasive Ductal	R: T1N1 L: T1N0	ER+, PR+, HER2+	Neoadj: 4 cyc AC + Paclitaxel Herceptin	Bil CW+SCF+ Axilla+MI	No recurrence/alive
7	64	R: T4N1 L: T4N1 M1	-	Invasive Ductal	-	ER+, PR+, HER2-	CT-	Bil CW+SCF+ Axilla+MI	Alive with disease
8	31	R: T2N2 L: T2N2 M1	R:MRM+AD L:MRM+AD	Invasive Ductal	R: T0N2 L: T0N0	ER+, PR+, HER2-	Neoadj: 4 cyc AC + 12 Taxol	Bil CW+SCF+ Axilla+MI	No recurrence/alive
9	72	R: T4N2 L: T4N2	R:Segmental Mastecto- my+AD L:MRM+AD	Mucoepi- dermoid	R: T4N2 L: T4N2	ER-, PR-, HER2-	Oral Kapesitabin	Bil CW+SCF+ Axilla+MI	Alive with disease
10	48	R: T1N2 L: T1N1	R:MRM+AD L:MRM+AD	Invasive Ductal	R: T1N2 L: T1N1	ER+, PR+, HER2+		Bil CW+SCF+ Axilla	No recurrence/alive
11	60	R: T1N1 L: T1N1	R:Lum +SLND L:Lum +SLND	Invasive Lobuler Invasive Ductal	R: T1N0 L: T1N1	ER+, PR+, HER2-	4 cyc AC + 12 cyc Taxol	Breast+SCF+ Axilla+MI Boost 10 Gy	No recurrence/alive
12	48	R: T4N2 L: T2N3	R:MRM+AD L:Lum +AD	Invasive Ductal	R: T4N2 L: T2N3	ER+, PR+, HER2-	No information	Bil CW+SCF+ Axilla+MI Breast+SCF+ Axilla+MI Boost 10 Gy	No recurrence/alive

Abbreviations: MRM; modified radical mastectomy, AD; axiller dissection, Lum; lumpectomy, SLND; sentinel lymph node dissection, ER; estrogen receptor, PR; progesterone receptor, HER2; human epidermal growth factor receptor, CW; chest wall, SCF; supraclavicular fossa, MI; mamaria interna

Table 2

Dosimetric data of patients.

	Lung V20(%)	Lung V5(%)	Heart Mean(Gy)	Heart V25(%)	Heart Max(Gy)	Esophagus V35(%)	PTV Max(Gy)	PTV Min(Gy)	PTV V47.5(%)	PTV V52.5(%)
1	24.78	47.54	04.15	0.61	35.82	25.40	55.92	18.40	92.97	5.55
2	23.14	45.82	07.62	6.06	50.77	0	57.40	25.78	98.04	4.21
3	28.06	53.79	19.20	31.10	44.07	17.07	53.47	26.97	78.96	0.13
4	28.37	63.06	12.72	8.52	50.29	0.56	56.58	17.19	96.31	10.39
5	25.01	64.90	11.28	30.98	52.07	8.53	56.05	27.32	97.21	56.80
6	20.12	59.48	12.33	6.76	47.30	11.92	56.30	28.80	95.05	24.12
7	20.36	60.79	08.51	4.56	46.66	4.03	58.46	27.91	96.20	8.80
8	29.00	92.00	13.40	14.2	53.50	27.00	56.03	33.60	96.70	8.60
9	28.70	67.90	08.30	4.50	50.30	7.56	57.20	29.00	94.40	19.00
10	29.00	79.00	08.00	2.45	47.40	0.07	55.10	40.70	95.00	3.10
11	23.00	82.00	05.20	0	14.00	0.15	59.00	38.00	95.00	44.00
12	27.00	78.00	08.70	4.50	45.00	15.20	56.00	28.60	93.80	7.90

Renal Epithelioid Angiomyolipoma: Case Report

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ABSTRACT

Background

Renal epithelioid angiomyolipomas (EAML) are rare tumors with aggressive behavior. Optimal EAML treatment, including mTOR inhibitors, remains undetermined. Most AMLs are considered benign and have a primarily local growth. However, one particular subtype characterized by the presence of an epithelioid cellular morphology, named epithelioid AML (EAML), and included in the family of perivascular epithelioid cell tumors (PEComas) can have malignant behavior. The aggressive cases tended to associate with older patients, larger tumor size, a higher percentage of epithelioid component, severe atypia, a higher percentage of atypical cells, higher mitotic count, atypical mitotic figures, necrosis, lymphovascular invasion, and renal vein invasion.. The presence of 3 or more of these factors was highly predictive of malignant behavior.

Case presentation

We report the case of a 44-year-old female presented with weight loss. She had no other co-morbid conditions; otherwise, a healthy individual. After the imaging studies revealed the presence of a left renal mass of 13 × 10 × 8 cm, the patient underwent a left radical nephrectomy. The pathology was consistent with an EAML with poor prognosis features (size > 7 cm, vascular and renal sinus invasion, necrosis, and severe atypia). The immunohistochemical profile revealed diffuse and intense expression of HMB-45 and Melan A, along with expression of smooth muscle actin, and negativity for Vimentin, PAX8, and RCC. After nephrectomy, the patient did not receive adjuvant therapy and started follow-ups in the urology clinic. Three years after primary surgery, the patient developed multiple lung and abdominal metastases. A new surgical attempt considered to be unfeasible. After reviewing the scarce existing literature, it was decided to start systemic treatment with everolimus 10 mg/day. After starting the treatment, the patient presented a very unusual and favorable response (complete response after 15 months of treatment). Tolerance was excellent with grade 1 intermittent diarrhea and grade 1 neutropenia. In the 17th month of treatment, the patient is still with complete response and has an excellent performance status.

Discussion and conclusions

mTOR signaling pathway is up-regulated in many cancers and hamartoma syndromes through mutations in genes that participate in this pathway. Previous studies have reported mTOR pathway activation for TSC1/TSC2 mutations in sporadic AML and PEComas, suggesting that mTOR inhibition could potentially provide a therapeutic benefit. However, therapeutic experience with aggressive EAML is scarce. These reports consist of clinical descriptions that include favorable responses in most cases.

A case of vitiligoid hipopigmentation caused by cyclin-dependent kinase inhibitor-Ribociclib

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ABSTRACT

Breast cancer is still the most common cancer among women. About 5 percent of women diagnosed with breast cancer have metastatic disease at the time of diagnosis. 30 percent of patient diagnosed early stage of breast cancer can develop metastasis in follow-up.

Cyclin-Dependent kinase (CDK) 4/6 inhibitors are new class of targeted therapy options for the treatment of estrogen receptor-positive (ER+), human epidermal growth factor 2-negative (HER2-) metastatic breast cancer.

Keywords: CA125, prognostic values, tumor marker, ovarian cancer

CASE REPORT

SA, a 60-year-old woman referred to the oncology outpatient clinic in March 2018. She had persistent stiffness and pain on her left breast. She had no family history or past medical history. She was non-smoker and did not take any medication. She was married with 2 children. She's been in menopause for 8 years. Her weight was 64 kilograms and Body Mass Index (BMI) was 25,00 kg/m². Physical examination revealed; 2,5*2,0 cm irregular-hard mass in lower inner quadrant of left breast and 1.0*1.5 cm mass under the left seat.

On bilateral breast ultrasound; left breast at 6 o'clock; a hypochoic lesion with punctate echogenicities, approximately 21x15x25 mm in size, with vascular signal on RDUS examination, approximately 5 cm from the nipple, parallel to the long axis of the skin. Left axilla, 25x11 mm in size, cortical thickness up to 6.2 mm, lymph node was observed (met?). Mammography revealed; In the left breast lower inner quadrant, a highly suspected mass with a high density of malignancy in microcalcifications within ~ 3x2x3 cm was observed which was obscured and irregularly bounded in places 6 cm away from the nipple skin. The left axilla was partially involved in the x-ray and had a thickened cortex of ~ 3 cm in diameter, partially fatty hilus. (FIGURE 1). The irregular mass was classified as Breast Imaging-Reporting and Data System category 4c (BI-RADS 4C) and diagnosed as invasive ductal carcinoma with fine needle aspiration biopsy. Histological grade: 2, estrogen receptor-positive (ER: %100, 3+), progesterone receptor-positive (PR: %20, 2+), androgen receptor-positive (AR: %70, 3+), human epidermal growth factor 2-negative (HER2-, score 1) and Ki-67 labeling index was %10.

Positron emission tomography-computed tomography (PET/CT) revealed; findings were consistent with primary malignant lesion in the left breast with its defined lymph nodes and multiple metastases to the skeletal system. (distal to left clavicle, T7 vertebra corpus, L1 vertebra corpus (SUV pubis (SUV-max: 5,8).

The serum study showed elevated alkaline phosphatase (135 U/L) level. Carcinoembryonic antigen (0,85 mikrogram/liter) and cancer antigen 15-3 (25,6 U/mL) levels were normal. Estradiol and follicle stimulating hormone levels

were compatible with menopausal status.

She was evaluated stage 4 post-menopausal breast cancer with multiple skeletal metastasis, without visceral crisis. Due to the presence of bone metastases, zoledronic acid, 4 mg i.v. monthly was added. She was treated with 600 mg ribociclib orally once a day for 21 days, followed by a 7-day break, and letrozole 2.5 mg orally once a day for 28 days, in April 2018.

Then after her PET/CT controls were good response and there wasn't any new lesion. Her laboratory studies revealed. Her alkaline phosphatase levels decreased. Grade 2 neutropenia and leukopenia detected. After 8 cycles of treatment (January 2019): on her physical examination there were hypopigmented lesions over her hands and face. (PICTURE) She was consulted with dermatology and endocrinology clinic. All of the test for differential diagnosis; including serum glucose level, cortisol and ACTH level, thyroid function tests were normal. Vitiligoid lesions appeared after 8 cycles of ribociclib treatment and it is associated with ribociclib treatment. She is still going on with letrozole and ribociclib therapy. Zoledronic acid 4 mg i.v. is being administered every three months.

DISCUSSION

For the treatment of hormone-receptor positive, HER2- negative metastatic breast cancer in postmenopausal women; ribociclib with letrozole combination treatment included in the manuals as a first-line endocrine therapy. Ribociclib is a selective inhibitor of CDK4/6 kinase activity. The studies showed that improved PFS (25.3 versus 16 months) is possible with adding ribociclib to endocrine therapy. Adverse events also were more common (grade 3-4 neutropenia, leukopenia, increased liver function tests, hot flushes, nausea, alopecia) with the ribociclib+letrozole combination therapy.

As we see in our case neutropenia is common. There is no data or event with dermatological changes -except alopecia- with ribociclib treatment, especially vitiligoid lesions.

It is clear that we need more clinical experience with these cyclin dependent kinases CDK4/6 inhibitors.

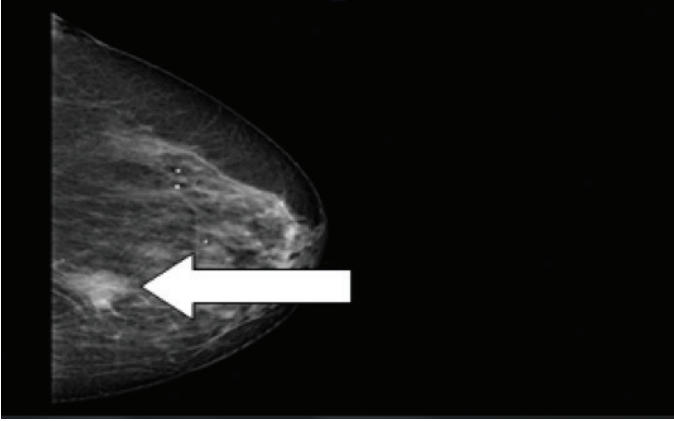


Figure 1: Mamography of left breast cancer (March 2018).



Picture 1: Vitiligoid hypopigmentation caused by Ribociclib.

Case Report of Steven Johnson Syndrome After Vandetanib

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ABSTRACT

Introduction: Medullary thyroid tumour is originating from the neuroendocrine parafollicular C cells of the thyroid. In postoperative recurrence and metastatic stage; contribution of cytotoxic chemotherapy and radiotherapy is limited. Beside this treatments, targeted therapies are recommended and first line therapies include tyrosine kinase inhibitor vandetanib. Although the side effects of these treatments are less than those of conventional chemotherapies close follow up is needed. We report a case of Steven Johnson syndrome associated with vandetanib therapy.

Case Presentation: A 52 year old male patient underwent R2 resection with the diagnosis of thyroid medullary carcinoma on 11.11.2017. During the follow-up, on 21.01.2018 in PET CT there was metastatic LAP in the jugular chain and recurrence in the operation site and vandetanib 300 mg/day was started. The patient was called to the control on the 14th day; he had no active complaints, normal physical examination findings, and normal ECG and blood tests; with these findings he was re-called 1 month later. At next follow-up, the patient applied to our hospital with grad 4 skin toxicity. We consulted patient to dermatology and hospitalized with a preliminary diagnosis of vandetanib-related Steven Johnson syndrome. Vandetanib was stopped and during hospitalization we treated with high dose corticosteroid therapy and supportive therapy and bulla resection for 1 month. After discharge single agent dacarbazine 200mg/m² is started. The patient take three cycles of dacarbazine and 19 fractional radiotherapy for metastatic regional cervical lymph nodes. He achieved a complete response to the treatment and routine scans continue to show no evidence of recurrent disease.

Discussion: Unfortunately, there is no effective treatment options for metastatic thyroid medullary cancer. Considering the clinical benefits, treatment with tyrosine kinases are very important. Although they are considered superior to conventional chemotherapy in terms of efficacy and safety, we should be careful to specific side effects to targeted therapies. In the phase 3 study of vandetanib, skin toxicity was 15% among all side effects, but grade 3 and above as below 0.1% and reported only on a case-by-case basis. Considering the response to cytotoxic chemotherapy and radiotherapy in our patient, treatments should be tailored for every individual in the light of guidelines.

Keywords: CA125, prognostic values, tumor marker, ovarian cancer



Gemcitabine Based Trimodality Treatment in Patients With Muscle Invasive Bladder Cancer: Hacettepe University Experience

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ABSTRACT

Introduction: The standard treatment for muscle invasive bladder cancer (MIBC) has been considered to be surgery. However in the modern era bladder-sparing approach using trimodality management (TMT) has shown outcomes that are comparable to those of radical cystectomy.¹ The aim of the current study is to evaluate oncologic results and toxicity profile of bladder-sparing treatment with radiotherapy and gemcitabine chemotherapy in patients with MIBC.

Methods: Between April 2005 and November 2018 44 patients with non-metastatic and N0 MIBC were treated with transurethral resection of bladder (TURB), external beam radiation therapy (EBRT) and concurrent gemcitabine. All patients underwent TURB before starting radiation therapy. Carcinoma in situ (CIS) was evaluated with random biopsies and biopsies from flat lesions of the bladder. All patients were staged using thorax-abdomen-pelvic CT and pelvic MRI. EBRT was delivered using 3D conformal technique or intensity modulated radiotherapy. Patients received 50 Gy in 25-28 fractions to full bladder followed by a boost dose of 10 Gy in 5 fractions to empty bladder with weekly concurrent gemcitabine of 50 mg/m². All patients were evaluated for age, gender, smoking status, neutrophile lymphocyte ratio (NLR) and platelet lymphocyte ratio (PLR) at diagnosis, presence of hydronephrosis (HUN), preoperative tumor size, tumor multifocality, presence of CIS, clinical tumor stage. Postoperative follow up included physical examination, chest radiography, cystoscopic evaluation 6 months after radiation therapy. Thorax-abdomen-pelvis CT was performed once a year. Acute/late genitourinary (GUS) and gastrointestinal (GIS) toxicity, recurrence status, cancer specific survival (CSS) and overall survival (OS) were evaluated. Statistical analysis was performed using SPSS v21.0. Kaplan-Meier survival estimates were calculated to describe CSS and OS. The effect of different parameters on survival was investigated using the log rank test.

Results: Median age of the patients was 72 years (IQR; 66-80). Most of patients were male (75%) and 12 patients had preoperative HUN and 11 patients had CIS at diagnosis. Patient and tumor characteristics were shown in Table 1. 34 patients (77.3%) had T2 disease and 10 patients (22.7%) had T3 or T4 disease. Complete TUR was achieved in 68.2% of the patients. All patients received planned ERT and concurrent gemcitabine treatment (median 6 cycles).

Median follow-up time was 19 months (IQR; 11.96-36.63). Intravesical recurrence was detected in 7 patients (15.9%) during routine post-radiotherapy cystoscopic evaluation. 1 and 2 year OS rates were 85.5% and 62.8%, respectively. 1 and 2 year disease free survival rates were 87.7% and 64.4%, respectively.

NLR and PLR were found to successfully predict CSS. For NLR 3.35 was determined as a cut off value of to predict CSS. We found lower CSS in patients with NLR more than 3.35 ($p=0.01$). Similarly, patients with PLR values of more than 126.47 had lower CSS ($p=0.022$). CSS was worse in patients with HUN ($p=0.022$) and CIS ($p=0.041$). (Figure 1). OS was not effected from the parameters evaluated in our study. Treatment was well tolerated in general with no grade 3-4 genitourinary or gastrointestinal toxicities. Toxicity details were summarized in Table 2.

Conclusion: Gemcitabine-based TMT is well tolerated with similar oncologic outcomes reported in the literature. Presence of HUN, CIS and high NLR and PLR seems to deteriorate CSS.

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Keywords: Bladder cancer, gemcitabine, trimodality therapy

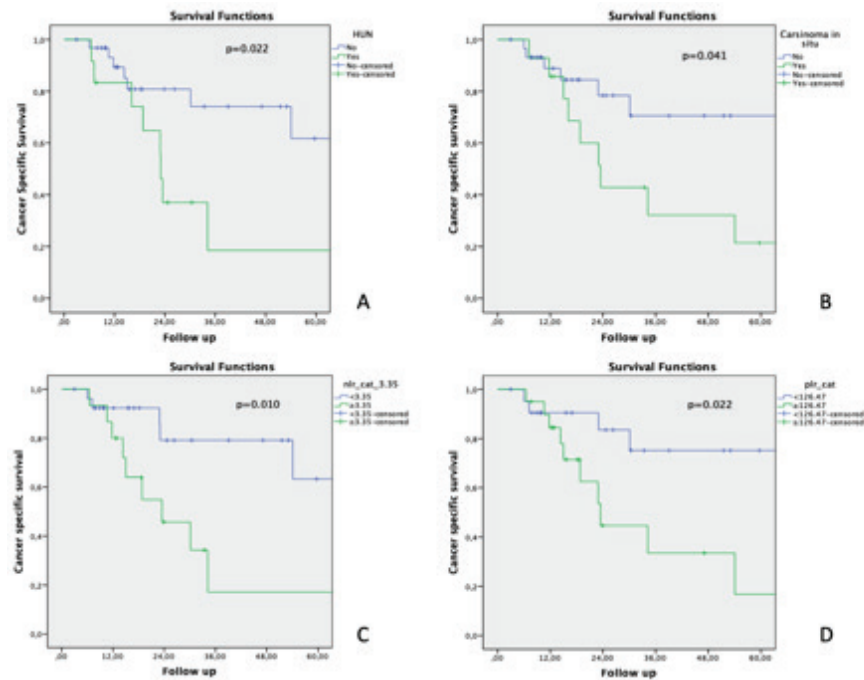


Figure 1: Cancer specific survival was found inferior in patients with hydronephrosis (HUN) ($p=0.022$) (A); Carcinoma in situ (CIS) ($p=0.041$) (B); neutrophil-lymphocyte ratio (NLR) more than 3.35 ($p=0.01$) (C) and platelet-lymphocyte ratio (PLR) more than 126.47 ($p=0.022$) (D).

Table 1

Patient and tumor characteristics.

Parameters	
Age (years) [median (IQR)]	72 (66-80)
Gender: n (%)	Male: 33 (75%) Female: 11 (25%)
Smoking status	Never smoker: 14 (31.8%) Smoker / Ex-smoker: 30 (68.2%)
Preoperative Hydronephrosis	No: 32 (72.7%) Yes: 12 (27.3%)
Tumor size (mm) [median (IQR)]	30 (15-59)
Tumor stage (AJCC 8th edition) n (%)	T2: 34 (77.3%) T3-T4: 10 (22.7%)
CIS	No: 30 (68.2%) Yes: 14 (31.8%)
NLR [median (IQR)]	2.60 (1.74-3.73)
PLR [median (IQR)]	126.47 (77.41-184.17)

Abbreviations: n= number; NLR= neutrophil-lymphocyte ratio; PLR= platelet-lymphocyte ratio; CIS= Carcinoma in situ.

Table 2

Acute and late adverse events.

Toxicity	
Acute GIS toxicity	Grade I: 5 (11.4%) Grade II: 3 (6.8%)
Late GIS toxicity	None
Acute GUS toxicity	Grade I: 8 (18.2%) Grade II: 9 (20.5%)
Late GUS toxicity	Grade I: 4 (9.1%) Grade II: 2 (4.5%)

The Results of Radical Radiotherapy in Older (Geriatric) Bladder Cancer Patients

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ABSTRACT

Purpose: 70% of bladder cancer patients are aged ≥ 65 years. Although the gold standard treatments in bladder cancer are radical cystectomy or bladder preservation radiotherapy & chemotherapy, most patients in this age group cannot receive optimal treatment due to comorbidities and possible treatment complications.

Material and Methods: Thirty one bladder cancer patients ≥ 65 years who underwent radical radiotherapy in our clinic between 2000 and 2017 were retrospectively evaluated. 25 (80%) of the patients were male. All cases were transitional cell carcinomas, 84% were at the T2 stage, and 26% of the patients had a history of intravesical treatment. Maximal transurethral resection was performed in all patients before radiotherapy. 80% of the patients received conformal radiotherapy. In phase I, 45 Gy/25 Fr was administered in the bladder and lymphatic areas. In phase II, the total median dose of 64 Gy (59.8-64.8) was given with an additional dose to the bladder. The patients could not receive chemotherapy due to age and comorbidity.

Results: The median follow-up duration was 18 (6-320) months. The locoregional control rate following radical radiotherapy was 48%. Distant metastases were observed in 11 patients. Metastases were found in these localizations: Bone, lungs, liver, and brain. 1, 2 and 5-year overall survival rates were 77%, 49% and, 30% respectively, while 1, 2 and 5-year-disease-free survival rates were 48%, 20% and, 10% respectively. Four patients were lost due to non-disease related conditions. In the univariate analysis, 2-year overall survival rate was significantly higher in the patients with complete response after radiotherapy (71% vs 28%, $p=0.013$).

Conclusions: Radical radiotherapy can be considered a tolerable treatment method in older patients who cannot be operated and/or bladder preservation treatment.

A Single Center Experience of Neoadjuvant Radiotherapy in Rectal Cancer

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ABSTRACT

Purpose: Neoadjuvant chemoradiotherapy (CRT) followed by surgical resection is the standard treatment for locally advanced rectal adenocarcinoma.^{1,2} In this study we evaluate our treatment results in patients treated with neoadjuvant radiotherapy (RT).

Material and Methods: Medical records of 197 patients treated between January 2009 and February 2019 were retrospectively evaluated. All of the patients had 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 and ChT.

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The Role of Radiotherapy +/- Chemotherapy in the treatment of Rectal Cancer: Single Center Experience

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ABSTRACT

Purpose: Neoadjuvant radiotherapy (RT) or chemoradiotherapy (CRT) followed by surgical resection is the standard treatment for locally advanced rectal adenocarcinoma¹. However there may be patients who refused to go surgery or not suitable for surgery due to medical comorbidities.² The aim of this study is to evaluate our 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 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%). 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 who were ≤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: Patients who refused surgery after RT +/- ChT and have low life expectancy might be good candidates for non-operative treatment approach with close follow up. Adjuvant ChT seems to improve OS and LRC.

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Stage is the predictor of prognosis in Classic Kaposi Sarcoma

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ABSTRACT

Introduction:

Kaposi sarcoma (KS) is a rare indolent angioproliferative neoplasm that requires infection with human herpes virus 8 (HHV-8). KS is classified into four types based on the clinical circumstances in which it develops: classic (the type originally described by Kaposi, which typically presents in middle or old age), endemic (several forms described in Sub-Saharan indigenous Africans prior to the AIDS epidemic), iatrogenic (a type associated with immunosuppressive drug therapy, typically seen in renal allograft recipients), and AIDS associated (epidemic KS). As there is still no public guidelines for staging and treatment, there is a need for factors that predict survival at the time of diagnosis. Therefore, we wanted to evaluate demographics, tumor characteristics, treatment modalities and prognostic factors of patients with classic KS

Material and methods:

Data of thirty five patients with classic KS diagnosed between 2010 and 2019 were evaluated retrospectively. All patients were CD34, CD31, HHV-8 positive, HIV negative and restaged according to KS staging system. Associations between clinical and demographical parameters with overall survival (OS) and progression free survival (PFS) were analyzed using Kaplan- Meier curves and compared by the log-rank test.

Results:

The median age of the patients was 72 (25-90) years and female male ratio was 4. The most common localization is foot (n:19, %54,3). According to the KS staging system, 26 patients (%74,3) were stage 1-2, 9 patients (%25,7) were 3-4, and visceral involvement was observed in 3 patients (lung: 3 patients) and bone metastasis detected in four patients at diagnosis. All patients underwent surgery and 13 patients (%37,1) received radiotherapy (RT) at diagnosis. Paclitaxel was given to 15 of 17 patients who received chemotherapy. The median follow-up was 49 months and the mean PFS/OS were 132,4/157,2 months. Patients with male sex, under 60 years, patients with ECOG 0-1 and foot localization have longer PFS and OS, but this is statistically insignificant. However, both PFS and OS of stage 1-2 patients are statistically longer.

Conclusion:

Classic KS is a slow-growing, localized, advanced age male disease. There are no definite prognostic factors in this disease group because of its rarity. According to the results of our study, unlike other clinical and demographic features, only stage is prognostic for both PFS and OS. Prospective and multicenter studies are needed to confirm the accuracy of the information we present.

Acknowledgments

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Table 1

Baseline Clinic And Demographic Characteristics Of35 Patients With Classic Kaposi Sarcoma.

		N(%)
Gender	Male	28 (80)
	Female	7 (20)
Age	Median (range)	72 (25-90)
	<60	9 (25,7)
	≥60	26 (74,3)
Ecog	0	11 (31,4)
	1	18 (51,4)
	2	6 (17,1)
	N(%)	
Location	Foot	22 (62,8)
	Arm	3 (8,5)
	Hand	4 (11,4)
	Leg	4 (11,4)
	Ear	2 (5,9)

Table 1

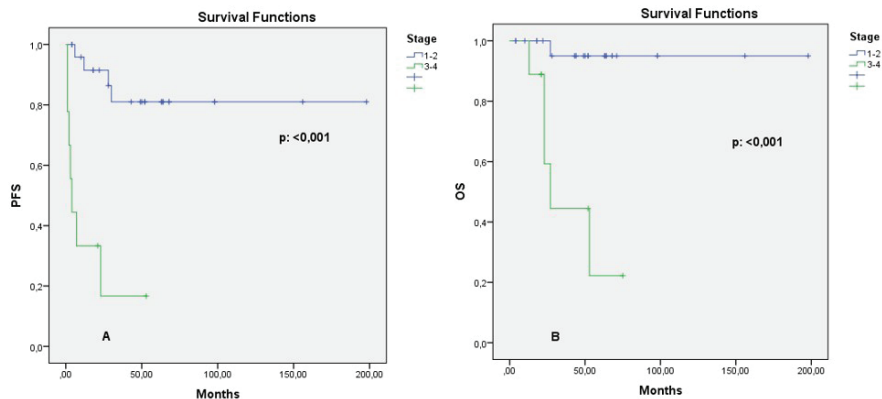
Baseline Clinic And Demographic Characteristics Of 35 Patients With Classic Kaposi Sarcoma.

Stage	1-2	26 (74,2)
	3-4	9 (25,7)
Metastasis site	None	22 (62,9)
	Lymph node	6 (17,1)
	Lung	3 (8,6)
	Bone	4 (11,4)
Treatment regimen	None	18 (51,4)
	Paclitaxel	15 (42,9)
	Liposomal doxorubicine	2 (5,7)
Radiotherapy	Yes	13 (37,1)
	No	22 (62,9)
Progression	Yes	11 (31,4)
	No	24 (68,6)
Status	Alive	29 (82,9)
	Death	6 (17,1)

Table 2

Overall and Progression-free survival times according to clinical and demographic parameters.

		Total (n)	Total (%)	PES Mean	p	OS Mean	p
Gender	Male	28	80	137,6	0,465	174,1	0,054
	Female	7	20	33,2		50,3	
Age	<60	9	25,7	147,8	0,776	163,8	0,798
	≥60	26	74,3	102,9		123,7	
Ecog	0-1	29	82,8	139,7	0,220	164,3	0,307
	2	6	17,8	80,3		104,4	
Location	Foot	22	62,8	150,9	0,168	144	0,275
	Other	13	37,2	38,3		66,2	
Stage	1-2	26	74,3	164,1	<0,001	189,4	<0,001
	3-4	9	25,7	14,6		40,7	
Overall		35	100	132,4		157,2	

**Figure 1:** Kaplan-Meier curves of Kaposi Sarcoma stage. A: PFS, B: OS.

Mindfulness, Self-Compassion, and Quality of Sleep for Family Caregivers of Patients with Cancer: An Interventional Study

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ABSTRACT

Purpose: To examine the effects of brief Mindfulness-Based Interventions (MBIs) and Educational Intervention (EI) on enhancing mindfulness, self-compassion and quality of sleep for FCs' of patients with cancer in Jordan.

Methods: A quasi-experimental, pre-test-post-test study was used. Two interventions were conducted, the first intervention is brief MBIs and the second intervention group attended an EI. The outcome variables were measured using: 1) the Arabic version of Mindful Attention Awareness Scale (MAAS); 2) the Arabic version of Self-Compassion Scale-Short Form (SCS-SF); 3) the Arabic version of Pittsburg Sleep Quality Index (PSQI). All participants completed the measures in the pre-test and post-test.

Results: At the end of the interventions, the results of the paired samples t-test indicated that FCs in the mindfulness group demonstrated significant improvements in measures of mindfulness, self-compassion and quality of sleep with a medium to large effect size (Cohen d between 0.36 and 2.01, $P < .001$). The independent samples t-test indicated that these improvements in the educational group were much less than improvements in the mindfulness group. No significant improvement in the quality of sleep was found at the end of EI.

Conclusions: The findings provide preliminary support for effectiveness of MBIs and EIs as a supportive care for FCs of patients with cancer.

Implications for Cancer Survivors: Oncology nurses should be encouraged to deliver tailored interventions to FCs of patients with cancer. This helps FCs to maintain an acceptable level of well-being to take care of their patients; which could reduce the demands for nursing home care.

Keywords: Family Caregivers, Mindfulness, Educational Interventions, Self-Compassion, Quality of Sleep.

The Prognostic Value of Neutrophil/Lymphocyte Ratio (Nlr), and Mean Platelet Volume (Mpv) as Biomarkers Before Radiotherapy in Gastric Cancer

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ABSTRACT

BACKGROUND: NLR and MPV are proved to have prognostic importance in various cancer types. In this study we aimed to investigate the prognostic value of NLR and MPV value before radiotherapy (RT) for post treatment local, distant relapse and overall survival (OS) in gastric cancer patients.

MATERIALS and METHOD: Files of 61 gastric cancer patients who underwent curative RT with were evaluated retrospectively. The neutrophil, lymphocyte and MPV values are found from the complete blood count test done before radiation treatment. RT was given to tumor bed ± gastric remnant and regional lymphatics with 1,8Gy daily fractions to a total dose of 45 – 50.4 Gy via 3D conformal RT (3DCRT) or Intensity modulated RT (IMRT) technique. Seven patients were not available for concurrent CT. Local or distant metastasis in follow up is regarded as progression. Optimal sensitivity and specificity cut-off values for NLR and MPV are investigated with receiver operating curves (ROC) analysis. Patients are investigated as two groups determined according to cut-off values. OS and progression free survival (PFS) for the groups is evaluated via Kaplan-Meier analysis and log rank test.

The effect of age, T stage, N stage, tumor location, surgery type, histopathological subtype, tumor grade, lymphovascular invasion, concurrent chemoRT, signet-ring cell component, cerbB2 status, number of dissected LN and metastatic LN on OS is analyzed with multivariate cox regression analysis.

RESULTS: Median follow up of 24 female (%39,4) and 37 male (%60,6) patients was 21,25 (5,88-91,76) months and 22 of them were alive. Median OS and PFS of whole group was 22,96 (5,88-91,83) and 20,73 (1,15-88,51) months respectively. A diagnostic cut-off value for NLR in terms of OS or PFS was not available with ROC analysis (AUC: 0,487 and 0,420 respectively). Median pretreatment NLR value was 1,66 (0,18-7,36). When patients were divided into 2 groups according to NLR value of 1,66; OS and PFS difference between the lower and higher NLR groups was not found statistically significant (p=0,939 and p=0,623 respectively). For MPV; a significant cut-off value in terms of PFS was not available. However; the cut-off was found as 8,45 fL for OS [AUC (95% CI): 0,607, (0,463-0,750)]. In the patients with MPV>8,45fL(n=23); median OS was 15,4 months, where it was found as 35,84 months in patients with MPV<8,45fL (p=0,006) (Figure 1). Patient characteristics in high and low MPV was not different (Table 1). Univariate analysis revealed a significant effect of N stage, LVI and number of metastatic LN≥5 on OS (p=0,001, 0,02 and 0,001 respectively). In multivariate analysis N stage and MPV was found to be significant in terms of OS (p= 0,043 and p=0,001 respectively).

CONCLUSION: Our results have shown that preradiotherapy MPV is a significant prognostic factor in terms of OS where NLR was not found to be effective on OS or PFS in gastric cancer. OS was lower in group with MPV>8,45fL. Evaluation of the NLR is a cost-effective method which can predict prognosis and aggressiveness of tumor. However; in our study we couldn't detect the prognostic importance of postoperative NLR after 1-2 course(s) CT in gastric cancer patients. On the contrary, the importance of MPV proceeded after adjuvant CT. Furthermore, as MPV value may be affected by many conditions, combined evaluation with other tumor markers and larger studies with longer follow up is warranted.

Keywords: Gastric Cancer, NLR, MPV, prognosis.

Table 1

Patient characteristics of low and high MPV groups.

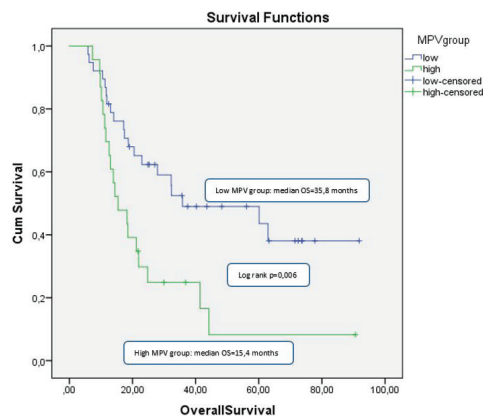
	Low MPV (<8,45fL)	High MPV (>8,45fL)	p
Age median (min-max)	62 (43-90)	62 (31-79)	0,493
Sex			
Male	22 (57,9)	15 (65,2)	0,385
Female	16 (42,1)	8 (34,8)	
T stage			
T1	0 (0)	1 (4,39)	0,638
T2	2 (5,3)	1 (4,3)	
T3	19 (50)	11 (47,8)	
T4	17 (44,7)	10 (43,5)	

Table 1

Patient characteristics of low and high MPV groups.

	Low MPV (<8,45fL)	High MPV (>8,45fL)	p
N stage			
N0	7 (18,4)	3 (13)	0,638
N1	5 (13,2)	4 (17,4)	
N2	7 (18,4)	7 (30,4)	
N3	19 (50)	9 (39,1)	
Tumor Location			
GEJ	3 (7,9)	2 (8,7)	0,916
Cardia	3 (7,9)	2 (8,7)	
Corpus	20 (52,6)	12 (52,2)	
Antrum-Pylor	9 (23,7)	5 (21,7)	
Diffuse	3 (7,9)	2 (8,7)	
Surgery			
Total Gastrectomy	16 (42,1)	10 (43,5)	0,923
Subtotal Gastrectomy	21 (55,3)	12 (52,2)	
Inoperable	1 (2,6)	1 (4,3)	
Histopathological subtype			
Adenoca	19 (50)	13 (56,5)	0,553
Diffuse type	10 (26,3)	7 (30,4)	
Intestinal Type	6 (15,8)	3 (13)	
Mixed carcinoma	3 (7,9)	0 (0)	
Grade			
1	12 (31,6)	3 (13)	0,257
2	6 (15,8)	4 (17,4)	
3	20 (52,6)	16 (69,6)	
Concurrent ChemoRT	34 (89,5)	20 (87)	0,534
RT Alone	4 (10,5)	3 (13)	
Lymphovascular invasion			
Yes	28 (73,7)	17 (73,9)	0,614
No	10 (26,3)	6 (26,1)	
Signet-ring cell component			
Yes	4 (10,5)	3 (13)	0,534
No	34 (89,5)	20 (87)	
CerbB2			
Yes	5 (13,2)	2 (8,7)	0,466
No	33 (86,8)	21 (91,3)	
Dissected LN median (min-max)	20 (2-55)	20 (2-44)	0,556
Positive LN median (min-max)	5 (0-42)	5 (0-29)	0,748
Total	38	23	

Variables are presented as number (percentage) or median value (minimum-maximum) as appropriate.



The Relationship Between Autoimmune Thyroid Disease And Breast Cancer

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ABSTRACT

Background : Autoimmune thyroid disease (AITD) is more frequently observed in breast cancer patients. There are not enough studies showing the prognostic significance of this association in terms of breast cancer. The aim of this study was to determine the breast cancer molecular subgroup frequency and to examine the relationship between AITD and the breast cancer in terms of prognosis and predictive factors.

Materials and methods: One hundred and one patients have been included to study. They have been divided into subgroups according to molecular classification. The patients with high serum anti-TPO(Thyroid peroxidase) levels were considered positive for AITD. Prognostic and predictive parameters (tumor stage, tumor size, axillary lymph node involvement, histologic grade, lymphovascular , perineural invasion, hormone receptor status, HER-2 over expression) were compared between breast cancer patients with AITD and those patients without AITD.

Results: The prevalence of thyroid autoimmunity was 23.8% (n = 24) in breast cancer patients. The axillary lymph node involvement in AITD positive breast cancer patients was lower than AITD negative patients (37.5% versus 61% respectively, p = 0.043). There were no significant differences between the two groups in terms of other prognostic parameters. More importantly, there was a significantly negative correlation between anti TPO levels and axillary lymph node involvement in patients (r= -0.245, p=0.014).

Conclusion: Positive axillary lymph nodes, have been found to be lower in breast cancer patients accompanied by AITD. This result supports the view that thyroid autoimmunity is a positive prognostic factor in terms of breast cancer. The mechanism through which it is effective should be examined in new studies.

Keywords: Thyroid autoimmune, breast cancer, prognostic factors

Table 1

Serum thyroid hormones, TSH and TPO levels in study pooplation with breast cancer.

	Breast Ca with AITD n:24	Breast Ca without AITD n:77	p
FreeT3 (pg/mL)	2.70±0.52	3.03±0.52	0.009
Free T4 (ng/dL)	1.17±0.19	1.26±0.22	0.08
TSH (μU/mL)	3.47±3.67	2.56±1.96	0.256
AntiTPO (IU/mL)	216.39±167.54	9.96±5.24	0.0001

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