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ARAŞTIRMA / RESEARCH

Treatment outcomes of early stage endometrial cancer patients: single center experience

Erken evre endometrium kanseri tanılı hastaların tedavi sonuçları: tek merkez deneyimi

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Abstract

Purpose: The aim of this study was to evaluate clinicopathological characteristics and treatment outcomes of early stages endometrial cancer patients in our center.

Materials and Methods: This study was a hospital-based retrospective observational case-series study. 116 patients were included in the study from Baskent University Department of Medical Oncology and Gynecological Oncology between the years of 2009-2015. De-novo metastatic patients were not included in the study.

Results: The median age of the patients was 58 (range 27-81) years. All of patients had European Cooperative Oncology Group (ECOG) performance score 0 (n:116). Endometrioid histology was the most common histopathological subtype (n:103, 88%). All of the patients were in local and local advanced stage. The significant percentage of patients had grade 2 tumor (n:55, 47.4%). Myometrial invasion was less than 50% in 78 patients (67.2 %). The median follow-up time was 61 months and 8 (6.9%) patients died. All patients underwent standard surgical staging with standard lymphadenectomy. Overall survival (OS) was not reached. There were 14 patients (12.1 %) and 34 patients (29.3 %) treated with adjuvant chemotherapy and radiotherapy, respectively.

Conclusion: Though endometrial cancer is the most common gynecological tumors in women, cure rate is very high. Relapse rate was 6 % (7 patients) and most of the relapse were local, 71.4% (5 patients).

Keywords: Endometrium cancer, basal clinicopathological characteristics, treatment outcomes.

Öz

Amaç: Bu çalışmada tek merkezde erken evre endometrial kanser hastalarının klinikopatolojik özelliklerini ve tedavi sonuçlarını değerlendirilmesi amaçlanmıştır.

Gereç ve Yöntem: Bu çalışma hastane bazlı retrospektif gözlemsel bir vaka serileri çalışmasıdır. 2009-2015 yılları arasında Başkent Üniversitesi Tıbbi Onkoloji ve Jinekolojik Onkoloji Anabilim Dallarına başvuran 116 hasta dahil edildi. De-novo metastatik hastalar çalışmaya dahil edilmedi.

Bulgular: Hastaların medyan yaşı 58 (dağılım 27-81) idi. Hastaların hepsinin ECOG performans puanı 0 (n: 116) idi. Endometrioid histoloji en sık görülen histopatolojik alt tipti (n: 103,% 88). Tüm hastalar lokal ve lokal ileri evrede idi. Hastaların önemli oranda bir kısmının grade 2 tümörü vardı (n: 55,% 47.4). Myometrial invazyon 78 hastada (% 67.2)% 50'den azdı. Ortanca takip süresi 61 ay idi ve 8 (% 6.9) hasta öldü. Tüm hastalara standart lenfadenektomi ile standart cerrahi evreleme yapıldı. Median genel sağkalım süresine (OS) ulaşılamadı. Sırasıyla 14 hasta (% 12.1) ve 34 hasta (% 29.3) adjuvan kemoterapi ve radyoterapi ile tedavi edildi.

Sonuç: Endometrial kanser kadınlarda en sık görülen jinekolojik tümörler olmasına rağmen, tedavi oranı çok yüksektir. Nüks oranı % 6 (7 hasta) idi ve nüksün çoğu lokal,% 71.4 (5 hasta) idi.

Anahtar kelimeler: Endometrium kanseri, bazal klinikopatolojik özellikler, tedavi sonuçları.

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INTRODUCTION

Uterine cancer is the most common gynecologic malignancy in developed countries and is the second most common in developing countries. Adenocarcinoma of the endometrium is the most common histologic type of uterine cancer. Women with endometrial carcinoma should undergo surgical staging and treatment as appropriate. Most of the patients are diagnosed early stage due to early signs of postmenopausal vaginal bleeding[1-3]. A large proportion of early-stage patients consist of stage I disease.

The treatment of endometrial cancer following surgery is based on the risk of disease recurrence. The treatment approach of stage I patients is not yet standardized. Treatment approach currently includes vaginal brachytherapy after appropriate surgical staging[4]. Although radiotherapy effectively reduce local relapse, there is no positive effect on overall survival[5]. Most patients were early stage with low distant relapse chance and surgical resection with adjuvan radiotherapy produce significant cure rate. There is also place for the adjuvant chemotherapy in particular patients therefore patients should be discussed in multidisciplinary tumor board.

With this observational retrospective study, we evaluated clinicopathological characteristics and treatment outcomes of early stages endometrial cancer patients in our center

MATERIALS AND METHODS

This study was designed as a hospital-based retrospective observational case-series study. Baskent University patient database was searched for international ICD codes endometrium cancers between the years of 2009 and 2015.

Consecutive 220 endometrium cancers patients those who were followed at Baskent University Medical Oncology and Gynecological Oncology departments were identified after obtaining ethical clearance from ethical committee. Among those, 116 patients with endometrium cancer were enrolled for this study.

Surgical staging was used [6] and early stage patients were included in the study. In all cases, histological type, stage, grade, myometrial invasion and other demographic features was recorded. The reasons for exclusions (n=104) included metastatic tumors (n=84) and non-follow-up patients (n=20). We collected patients data from hospital archives including patients and tumors characteristics, treatment modalities, survival rates and prognostic factors.

Data collection

The clinical and laboratory information of the patients was transferred safely from the electronic records to the SPSS form. Demographic and clinicopathologic variables of the patients were determined by considering the disease characteristics and follow-up criteria included in the international guidelines. Demographics, clinicopathological characteristics, radiographic data and treatment modalities of patients were extracted from electronic medical records for all 116 patients. In all cases, pathological evaluation was performed in Baskent University Department of Pathology. Conventional tomography PET CT was used for staging of the patients.

Statistical analysis

All results were presented as the rate for categorical values or mean and median for continuous variables. Clinical and statistical significant correlation between continuous variables was calculated by Spearman's rank correlation test, rs (spearman's correlation coefficient) and p value (2-tailed) were noted. Overall Survival (OS) was defined by the time from the date of death or last control minus the first day of the chemotherapy or date of surgical treatment for patients not receiving chemotherapy . Survival curves were estimated according to the Kaplan-Meier method, and log-rank tests were used for univariate statistical comparisons. Adjusted Hazard Ratio (HR) and 95% confidence interval (95% CIs) were used for estimation. All statistical data were analyzed using the SPSS version 17.0, and a p value of <0.05 was considered statistically significant.

RESULTS

Patient and tumor characteristics are shown in table-1. The median age of the patients was 58 (range 27-81) years. All of patients had European Cooperative Oncology Group (ECOG) performance score 0 (n:116). 8 patients (6.9 %) were smoking and 58 patients (50%) had comorbidities. Endometrioid histology was the most common histopathological subtype (n:103, 88%). 13 (11.2 %) patients had non

endometrioid histopathological subtype. The disease stages were stage 1, 2 and 3 (n=102, 87,9%, n=9, 7.8 % and n:5,4.3% respectively). 2 patients had lymph node metastasis (paraaortic and pelvic) The majority of patients had grade 2 tumor (n:55, 47.4%). Stage IA patients constitutes significant portion of the group, 78 patients (67.2 %).

Table-1. Patient and tumor characteristics.

Characteristics	n (%)
Median age	58 (27-81) years old
ECOG (0)	116 (100)
Smoking (Yes)	8 (6,9)
Comorbidities (+)	58 (50)
Histological Type	
Endometrial carcinoma	103 (88.8)
Serous	1 (0.9)
Other Types	12 (10.3)
Stage of tumor	
1a	78 (67,2)
1b	24 (20,7)
2	9 (7.8)
3a	3 (2.6)
3c	2 (1.7)
Grade	
1	47 (40.5)
2	55 (47.4)
3	14 (12.1)
Myometrial İnvasion	
< %50	78 (67.2)
≥ %50	38 (32.8)
Lymphovascular invasion (Yes)	23 (19.8)

Treatment and outcome

The median follow-up time was 61 months and 8 (6.9%) patients died. All patients underwent optimal laparoscopic surgical staging. Overall survival (OS) was not reached (Figure 1). 14 patients (12.1 %) received adjuvant chemotherapy (4-6 cycle of carboplatin AUC 5-paclitaxel 175 mg/m2) and 34 patients (29.3 %) received adjuvant radiotherapy (table-2). 9 of the patients receiving adjuvant treatment were stage 1. The stage distribution of patients receiving adjuvant chemotherapy is shown in Table 2.

Relapse of disease was observed in 7 patients (6 %) and 5 (71.4) of these patients had local recurrence and 2 patients had systemic recurrence. Myometrial invasion was over 50% in 5 of 7 recurrent patients. All recurrent patients were grade 2. 8 (6.9%) patients died and only one patient died because of the cancer relapse. One patient died during adjuvant chemotherapy. Out of 8 patients, 7 (87.5%) of them had stage 1 endometrial cancer. Exact reasons for the death of six patients were unknown.

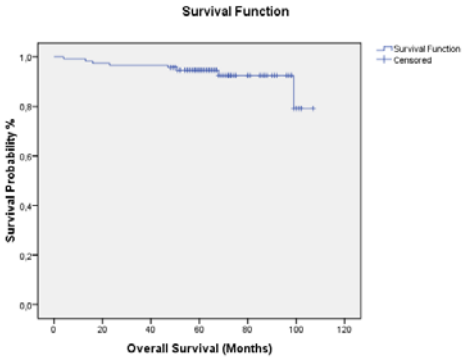

Figure-1. Kaplan–Meier estimates of overall survival (OS).

Table-2. Treatment and outcomes

Characteristics	n (%)
Adjuvant Chemotherapy	
Yes	14 (12.1)
No	102 (87.9)
Adjuvant Chemo-Stages	
Stage 1A	5 (35.8)
Stage 1B	4 (28.5)
Stage 2	2 (14.2)
Stage 3	3 (21.5)
Adjuvant Radiotherapy	
Yes	34 (29,3)
No	82 (70,7)
Radiotherapy types	
Brachytherapy (B)	25 (73.5)
All abdomen (AB)	2 (5.9)
AB+B	7 (20.6)
Recurrence	
Yes	7 (6)
No	109 (94)
Localization of recurrence	
Local	5 (71.4)
Systemic	2 (28.6)
Final Status	
Died	8 (6.9)
Alive	108 (93.1)

DISCUSSION

In this study we retrospectively report the clinicopathological characteristics, treatment modalities with outcomes of endometrial cancer patients in our center. The majority of patients were stage I. The median follow-up time was 61 months and 8 patients died whose only one directly related with the cancer relapse and other one died from the systemic toxicity of the adjuvant chemotherapy. In whole group, 7 (6%) patients had disease recurrence. Median overall survival was not reached. Survival rates were 97%, 96% and 89% for the second, third and fifth years, respectively.

The treatment of the endometrial cancer starts with the surgical staging followed with decision of adjuvant treatment with regard to necessities, type and sequencing [7-10]. Surgery is the primary treatment modality and total laparoscopic hysterectomy or total abdominal hysterectomy may be preferred options[11] and adjuvant therapy in stage I endometrial cancer is controversial. Most of the patients didn't require adjuvant treatment. Nearly one third of the patients with stage IB grade 3 cancer have distant metastases on follow-up. Therefore effective adjuvant chemotherapy is used for these patients. However data on adjuvant chemotherapy in this patient population is limited but trials ongoing. Patients with grade 1-2 tumors have low risk of recurrence but those with grade 3 disease have higher risk. Radiotherapy reduces the risk of local recurrence but it has no survival benefit. In our study, 34 (29.3%) and 14 (12.1%) patients were treated with adjuvant radiotherapy and chemotherapy, respectively. Nine patients in out of 14 patients treated with adjuvant chemotherapy and nine (64.3%) of them were stage I patients therefore adjuvant chemotherapy decision was based on histology (non-endometrioid) not stage of disease.

In current study, 58 patients (50%) had accompanying metabolic disease so significant percent of our patients were not having excellent health status. Unfortunately, adjuvant treatment of the endometrial cancer is not powered by the phase studies, therefore decision was made case by case [12]. In our study, there is very low rate of systemic relapse and one patient died during platin based adjuvant chemotherapy. So, adjuvant chemotherapy in endometrial cancer is not standard and decision have to be made through extensive discussion in tumor board. There are several limitations of our study including retrospectively desingned and including small size patients from single center.

In conclusion, our study showed that most of the patients of endometrium cancer are early stage and systemic relapse are very rare after successful surgical staging. Significant percent of them require adjuvant radiotherapy and relatively low percent of them require adjuvant chemotherapy. Adjuvant chemotherapy in endometrial cancer is not for high (advanced) stage disease also receive chemotherapy based on risk factors. We faced one death out of the nine adjuvant chemotherapy patients therefore we have to pick up right patients for the adjuvant chemotherapy considering the high rate of additional systemic metabolic disease in endometrial cancer in particular.

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