

COMPARISON OF OVERALL SURVIVAL AND DISEASE-FREE SURVIVAL IN SEROUS ENDOMETRIAL CANCER AND UTERINE CARCINOSARCOMA

SERÖZ ENDOMETRİYAL KANSER VE UTERİN KARSİNOSARKOMDA GENEL SAĞKALIM VE HASTALIKSIZ SAĞKALIMIN KARŞILAŞTIRILMASI

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ABSTRACT

Objective: The aim of this study was to compare the survival durations of patients with uterine carcinosarcoma with the survival of patients with serous endometrial cancer.

Method: Patients who were operated for endometrial cancer between 2002 and 2014 were screened from clinic archive. Patients with histological tumor type carcinosarcoma or serous type were included in the study.

Results: Total number of patients was 99; 53 of them had carcinosarcoma and 46 had serous histology. Median disease-free survival was 20 (2-27) months in carcinosarcoma and 36 (3-180) months in serous type (Log-Rank test $p=0.156$). Median overall survival duration was 28 (4-170) months for carcinosarcoma and 46 (3-180) months for serous ($p=0.105$). The 5-year overall survival rate was 41.2% in carcinosarcoma histology and 55.4% in serous histology. After recurrence, patients with carcinosarcoma histology survived for an average of 8 (1-19) months, while those with serous histology survived for an average of 14 (2-43) months ($p=0.090$).

Conclusion: According to the results of Log-Rank test analysis, no statistically significant survival difference between the patients with uterine carcinosarcoma and with serous endometrial cancer was found. However, disease-free survival, overall survival, and survival duration after recurrence are longer in serous histology than in carcinosarcoma.

Keywords: Endometrium cancer, survival, carcinoma, carcinosarcoma

ÖZET

Amaç: Bu çalışmanın amacı uterin karsinosarkomlu hastaların yaşam süresini, seröz endometrial kanserli hastaların yaşam süreleri ile karşılaştırmaktır.

Yöntem: 2002-2014 yılları arasında endometriyal kanser nedeniyle opere edilen hastalar klinik arşivinden tarandı. Çalışmaya histolojik tümör tipi karsinosarkom veya seröz tip olan hastalar dahil edildi.

Bulgular: Toplam hasta sayısı 99; bunların 53'ünde karsinosarkom, 46'sında seröz histoloji saptandı. Medyan hastaliksiz sağkalım süresi karsinosarkomda 20 (2-27) ay ve seröz tipte 36 (3-180) aydı (Log-Rank testi $p=0,156$). Medyan sağkalım süresi karsinosarkom için 28 (4-170) ay, seröz için 46 (3-180) aydı ($p=0,105$). Beş yıllık genel sağkalım oranı, karsinosarkom histolojisinde %41,2 iken, seröz histolojide %55,4 idi. Nüksten sonra, karsinosarkom histolojisi olan hastalar ortalama 8 (1-19) ay, seröz histolojisi olanlar ortalama 14 (2-43 ay) yaşamışlardı ($p=0,090$).

Sonuç: Log-Rank test analizi sonuçlarına göre, uterin karsinosarkomlu ve seröz endometriyal kanserli hastalar arasında istatistiksel olarak anlamlı bir sağkalım farkı bulunmadı. Bununla birlikte, hastaliksiz sağkalım, genel sağkalım ve nüks sonrası sağkalım süresi seröz histolojide karsinosarkomdan daha uzundur.

Anahtar Kelimeler: Endometrium kanseri, sağkalım, karsinom, karsinosarkom

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INTRODUCTION

Histologic types of serous and carcinosarcoma of the endometrium cancers are less common than endometrioid histology and have a worse prognosis. Approximately 8-10% of all patients with endometrial carcinoma are serous and 3-5% are carcinosarcoma histology (1, 2).

In this study, we compared the survival time of serous and carcinosarcoma subtypes of patients with endometrial carcinoma. Our aim was to analyze whether the survival of these two histologies with poor prognosis was different. It may be helpful to the clinician in terms of follow-up protocols.

METHODS

Patients who were operated for endometrial cancer between 2002 and 2014 at Gynecological Oncology Clinic of İstanbul Medical Faculty Hospital were screened from the clinical archive. According to the post-operative pathology report, patients whose tumor histology was defined as serous or carcinosarcoma were selected for the study. Data were obtained from patient file records. The age of the patients, histological type of tumor, stage of the disease, date of operation, date of the last examination, relapse (no / yes), date of recurrence, and whether the patient lived or not were recorded. The period from the date of operation to the final examination date was defined as the follow-up period. The duration from surgery to the date of relapse was determined as the

duration of disease-free survival, and the duration until the patient was last seen was determined as the overall survival time. The survival time according to histological type criteria was compared with Kaplan-Meier survival analysis.

MATERIAL

All patients underwent hysterectomy and salpigo-forectomy and omentectomy. Histological types were reported as serous or carcinosarcoma according to postoperative pathology report. Lymphadenectomy (pelvic ± paraaortic) was performed in 68% of the patients in the carcinosarcoma group and 76% in the serous group. Pathological examinations were performed by the same gynecopathology team. All patients were re-staged according to the FIGO 2010 revised staging system.

Statistical analysis

Median, mean, standard deviation were used for descriptive data. Survival analysis was evaluated by Kaplan Meier analysis. Survivals of serous and carcinosarcoma types were compared with log rank test. The level of significance was considered as 5%.

RESULTS

A total of 99 patients were evaluated, 53 of whom were carcinosarcomas and 46 had serous histology (Table 1). The mean age of the patients was 66.6 years in the carcinosarcoma and 65.8 years in the serous type ($p=0.727$).

Table 1. Characteristics of carcinosarcoma or serous endometrial cancer patients

Features	Carcinosarcoma	Serous	p value
Number of patients	53	46	
Age mean±sd	66.6±11.2	65.8±10.5	0.727
Stage			
1-2	36 (67.9%)	32 (69.5%)	
3-4	17 (32.1%)	18 (30.5%)	
Tumor size, mean±sd	5.1±2.4	4.6±2.6	0.416
Lymphadenectomy	36 (68%)	35 (76%)	0.318
Lymph Node Number (median; min-max)	16; 2-35	14; 2-30	
Follow-up time median (min-max)	28 (4-170)	46 (3-180)	
Recurrence	31 (58.5%)	22 (47.8%)	0.142
Exitus	30 (56.6%)	21 (45.6%)	0.556
Disease-free survival time (months) Median (min-max)	20 (2-27)	36 (3-180)	0.156
Overall survival time (months) Median (min-max)	28 (4-170)	46 (3-180)	0.105
5-year overall survival rate	41.2%	55.4%	
Average survival time after recurrence (months) Median (min-max)	8 (1-19)	14 (2-43)	0.090

sd, standard deviation; min, minimum; max, maximum

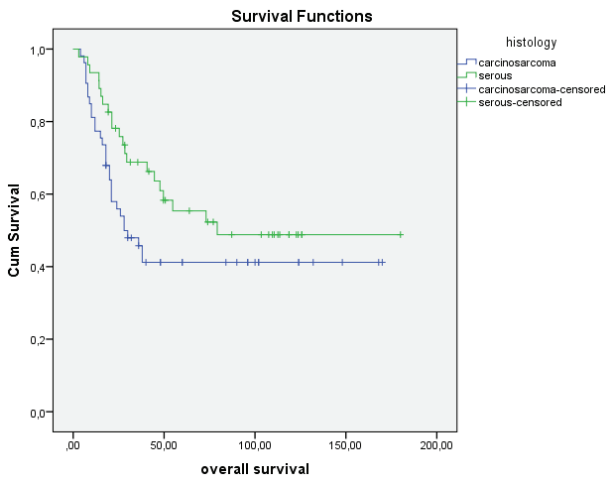


Figure 1: Overall survival graph of carcinosarcoma and serous type tumor

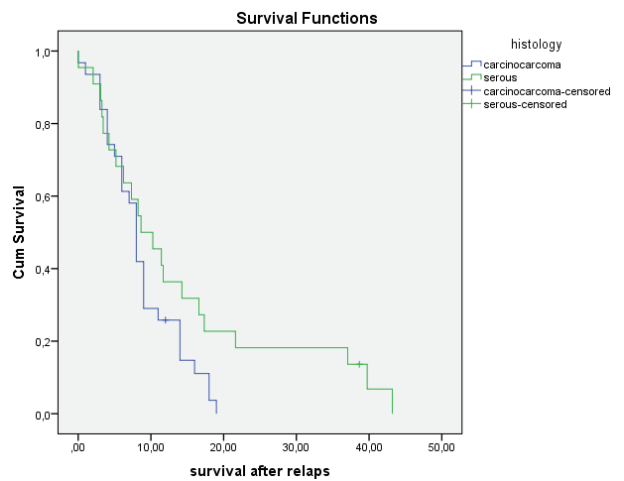


Figure 3: Survival time after relapse in carcinosarcoma and serous type tumor

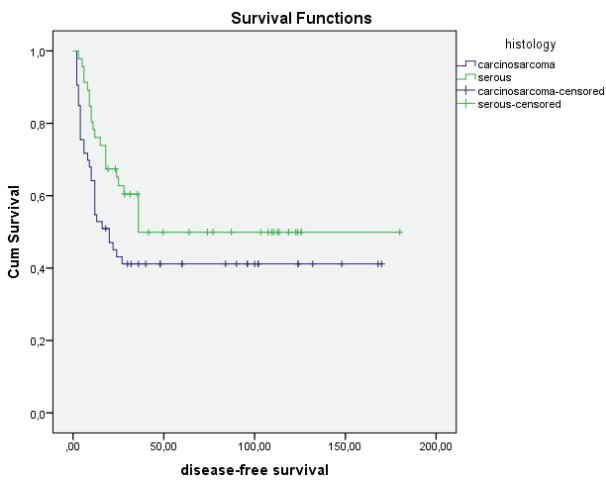


Figure 2: Disease-free survival in carcinosarcoma and serous type tumor

67.9% of patients with carcinosarcoma and 69.5% of patients with serous tumors were in early stage (FIGO I-II). The mean tumor size was 5.1 ± 2.4 cm in the carcinosarcoma and 4.6 ± 2.6 cm in the serous type. The rates of patients who underwent lymphadenectomy (68% and 76%) and removed lymph node numbers [median (min-max) 16 (2-35) and 14 (2-30)] were similar in both groups. The median follow-up period was 28 months (4-170) for carcinosarcoma, and 46 (3-180) months for serous type. During the follow-up period, 58.5% (n=31) of the patients in the carcinosarcoma group and 47.8% (n=22) of the serous group had recurrence ($p=0.142$). Median disease-free survival was 20 (2-27) months in carcinosarcoma and 36 (3-180) months in serous type (Log-Rank test $p=0.156$). 56.6% (n=30) of the carcinosarcoma group and 45.6% (n=21) of the serous group died ($p=0.556$).

No death was observed for other reasons. Patients with carcinosarcoma survived for an average of 8 months after relapse, while serous patients survived for 14 months ($p=0.090$) (Figure 3). Median overall survival was 28 months for carcinosarcoma and 46 months for serous ($p=0.105$). The 5-year overall survival rate was 41.2% for carcinosarcoma and 55.4% for serous (Figure 1, 2).

DISCUSSION

In this study, survival times of patients with carcinosarcoma or serous adenocarcinoma were analyzed. Log-Rank test was used to compare the survival of these two groups and no significant difference was observed. However, overall survival, disease-free survival and mean survival time after relapse were longer in patients with serous adenocarcinoma. The surgical approach was similar in both groups (rates of patients undergoing lymphadenectomy, as well as the number of lymph nodes removed). The 5-year overall survival rate was also higher in the serous group (41.2% and 55.4%).

Carcinosarcoma and serous type histology have worse prognosis than endometrioid type histology. The National Comprehensive Cancer Network (NCCN) guide accepts carcinosarcoma, serous or clear cell endometrial cancers in the same category (non-endometrioid) and suggests the same treatment approach (3). In the literature, the survival time of these patients is reported quite differently. The median survival time for uterine carcinosarcoma is reported to be 18-36 months in general (4, 5). In a study by Zhang et al., 83% of carcinosarcoma patients recurred in 1 year, they have worse survival than patients with serous endometrial cancer (6). Piver et al. reported a five-year survival rate of 36% in early-stage uterine carcinosarcoma (7). Gadduci et al. reported a five-year survival rate of 33% in patients with early uterine

carcinosarcoma treated by combination of radiotherapy and surgery (8). The survival time of patients with carcinosarcoma seems to be low even in the early stages.

Endometrial serous carcinomas constitute less than 10% of endometrial adenocarcinomas, but serous adenocarcinoma is the most common cause of death due to endometrial cancer (9). Ureyen et al. found a 5-year overall survival rate of 67% and a disease-free survival rate of 45% in their studies (10). Felix et al. reported similar survival in patients with serous and carcinosarcoma (11).

In our study, survival times of 99 patients with serous or carcinosarcoma histology were evaluated. The median duration to relapse was 20 months in carcinosarcoma and 36 months in serous type (Log-Rank $p=0.156$). The mean survival time after recurrence was slightly longer in serous type (8 and 14 months, $p=0.090$).

As a result, the prognosis is not good in serous and carcinosarcoma tumors of the endometrium. It may be useful to develop new treatment modalities in these aggressive histological types and to perform the studies to identify patients at an earlier stage.

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