Original Research

Assessment of histopathological analysis of endometrial carcinomas

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ABSTRACT:
Background: Off gynecological cancers, endometrial cancer is the sixth and over cancer is the seventh most common cancers. The present study was conducted to assess histopathological analysis of endometrial carcinomas. **Materials & Methods:** Archives of 42 female patients of endometrial carcinomas from archives were enrolled. FIGO surgical staging system-2009 was used in the staging of endometrial cancer. FIGO was used in grade classification and World Health Organization Classification of Tumors system was used for the histological classification. **Results:** Histological types were endometrial adenocarcinoma in 36, Endometrial Serous Papillary Carcinoma in 1 and Endometrial Carcinosarcoma in 5 cases. The difference was significant (P< 0.05). **Conclusion:** Most common histological types were endometrial adenocarcinoma and Endometrial Serous Papillary Carcinoma.
Key words: endometrial adenocarcinoma, Endometrial Serous Papillary Carcinoma

INTRODUCTION

Among the causes of post-menopausal bleeding are atrophic vaginitis, servicitis, endometritis, endometrial atrophy, myoma uteri, endometrial hyperplasia, endometrial polyps, endometrium, vulva, vagina and cervix. Top three cancer types among women around the world are breast, cervix and colorectal cancers, respectively. Off gynecological cancers, endometrial cancer is the sixth and over cancer is the seventh most common cancers. While among the cancer types seen in women in the world, endometrial cancer is the sixth in incidence and seventh in mortality.[1]
Endometrial carcinomas may clinically present as AUB in 8-50% of cases. In perimenopausal and menopausal females who presented with AUB, the risk of endometrial hyperplasia and carcinoma are increased and D and C plays an important role in diagnosing these conditions.[2] The introduction of hysteroscopy opened a new dimension in the evaluation of a patient with abnormal uterine bleeding and it has replaced the D and C procedure as it affords a more accurate diagnosis than D and C for intrauterine pathologies which are pedunculated but for hyperplasia and carcinoma endometrium,

histopathological evaluation of endometrium is 100% diagnostic, and D and C is cost-effective as compared to hysteroscopy.[3]
It is suggested to perform biopsy on the women who have risk factor in their history. In literature, screening tests for endometrial cancer are; endometrial biopsy, USG and bulk screening which is suggested in the screening of high- risk groups.[4] Especially in the studies made with the group that take tamoxifen, it was found beneficial to measure endometrial thickness with Dilatation & Curettage (D&C) or hysteroscopy in determining endometrial cancer risk.[5] The present study was conducted to assess histopathological analysis of endometrial carcinomas.

MATERIALS & METHODS

The present study comprised of Archives of 42 female patients of endometrial carcinomas from archives. All were informed regarding the study.
Data such as name, age etc. was recorded. FIGO surgical staging system-2009 was used in the staging of endometrial cancer. FIGO was used in grade classification and World Health Organization

Classification of Tumors system was used for the histological classification. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS
Table I Distribution of patients

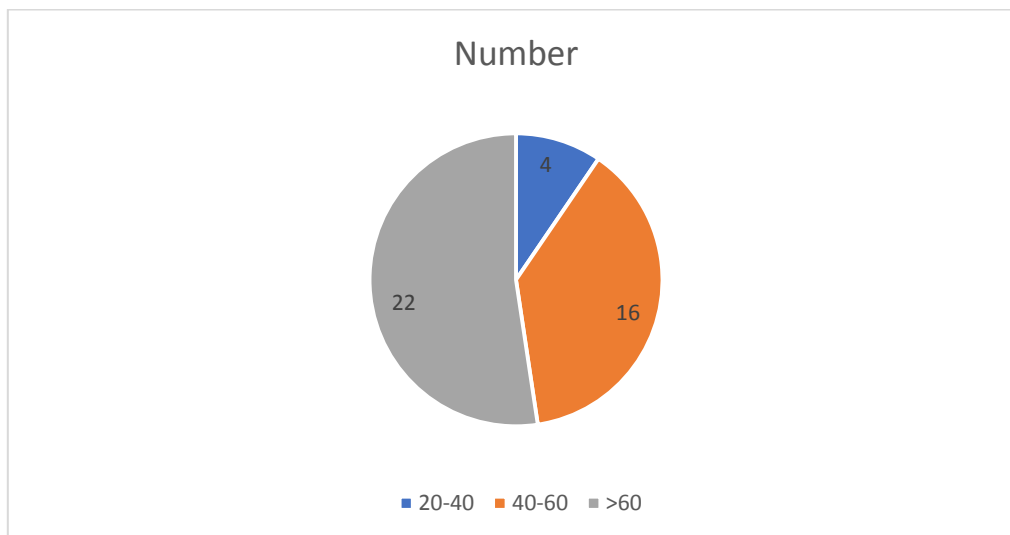| Age group	Number	P value
20-40	4	0.05
40-60	16	
>60	22	

Table II: Demographic characteristics

Parameters	Number
Gravida	4.27
Parity	3.64
BMI (Kg/m^2)	32.1
Smoking	5
Diabetes mellitus	12
Hypertension	14

Table II shows that gravida was 4.27, parity was 3.64, BMI was 32.1 Kg/m^2, smoking was seen in 5, hypertension in 14 and diabetes mellitus in 12. Table I, graph I shows that out of 42 patients, age group 20-40 years had 4, 40-60 years had 16 and >60 years had 22 patients. The difference was significant (P< 0.05). Table II shows that histological types were endometrial adenocarcinoma in 36, Endometrial Serous Papillary Carcinoma in 1 and Endometrial Carcinosarcoma in 5 cases. The difference was significant (P< 0.05).

Table III: Histological types of the patients with endometrial cancer

Histological types	Number
Endometrial Adenocarcinoma	36
Endometrial Serous Papillary Carcinoma	1
Endometrial Carcinosarcoma	5

DISCUSSION
A relation between endometrial cancer and over-weight and obesity has been detected. While fatty nourishment increases the endometrial cancer risk, fruit-vegetable weighted nourishment reduces the endometrial cancer risk. It is seen that the risk of endometrial cancer development in women who never smoked is higher than the women who smoked before or are still smoking.[6] In the studies with Estrogen Replacement Treatment (ERT) it was revealed that long term use of estrogen had a close relation (an increase of 10-20 times in relative risk) with endometrial cancer development. The risk is more in the individuals who have endometrial cancer history in their families.[7] It is also reported that individuals who have colon cancer in their families are at risk of endometrial cancer. Early menarch and late menopause increase the risk of endometrial cancer. High BMI increases the mortality rate from endometrial cancer, too.[8] The present study was conducted to assess histopathological analysis of endometrial carcinomas.

In present study, out of 42 patients, age group 20-40 years had 4, 40-60 years had 16 and >60 years had 22 patients. Sik et al[9] study composed of 298 patients who had endometrial cancer. Of the patients who were included in the study, average age was 56.54±9.69, BMI average was 31.47±6.20, gravida average was 4.16±2.59, and parity average was 3.41±2.15. Distributions of the patients by surgical stages were as follows; there were 32 patients whose tumor stage was in 1A (%10.7), 127 patients in 1B (42.6%), 47 patients in 1C (15.8%), 18 patients in 2A (6.0%), 7 patients in 2B (2.3%), 30 patients in 3A (10.1%), 2 patients in 3B (0.7%), 30 patients in 3C (10.1%), 2 patients in 4A (0.7%) and 3 patients in 4B (1.0%). Of the patients with endometrial cancer in our study, tumors of 102 patients were (34.2%) in grade I, 139 were (46.6%) in grade II and 57 were (19.1%) in grade III. Because endometrial cancer shows earlier symptoms than the other gynecological cancers, it can be diagnosed in early stages. There is a surgical standard treatment, but it changes according to the stages and general state of the patients.

We found that gravida was 4.27, parity was 3.64, BMI was 32.1 Kg/m^2, smoking was seen in 5, hypertension in 14 and diabetes mellitus in 12. Treatment protocols of the patients vary by myometrial invasion depth of the tumor in endometrial cancer. Intra operative detection of the myometrial invasion depth is made via the macroscopic evaluation of uterus cross section or via the histological examination of the frozen sections. The extent of the surgical treatment is decided by considering the myometrial invasion depth during the operation. In the presence of deep myometrial invasion, patients need wider lymph node dissection.[10] Deciding the extent of the surgical treatment after the operation starts is a significant drawback in this case. The exact invasion depth of the tumor is detected via the histopathological examinations after the operation. Although surgical-pathological staging detects the invasion depth of the tumor accurately, it has a risk of morbidity and may negatively affect optimal radiotherapy practice.[11]

In the present study, histological types were endometrial adenocarcinoma in 36, Endometrial Serous Papillary Carcinoma in 1 and Endometrial Carcinosarcoma in 5 cases. The difference was significant (P< 0.05). Varun et al[12] retrospective study, conducted on 100 patients. Age group ranges from 35-58 years and most common age group presenting with AUB was 35-39 years. The most common presenting complaint was menorrhagia 54% (54/100). Histopathology of endometrium showed non-organic causes in 80% (80/100) of AUB patients and the remaining 20% (20/100) had organic causes. Most common endometrial histopathology among non-organic causes was proliferative endometrium 43.75% (35/80) and the most common organic cause was endometrial polyp 40% (8/20). Endometrial hyperplasia was found in 30% (6/20) and endometrial carcinoma was found in 20% (4/20) of cases among organic causes.

CONCLUSION
Authors found that most common histological types were endometrial adenocarcinoma and Endometrial Serous Papillary Carcinoma.

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