

Study on endometrial cancer patients and their treatment outcome in BPKMCH

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ABSTRACT

Background: There are few studies on endometrial carcinoma in Nepal so the present study was conducted to know the clinicopathologic features of patients with endometrial cancer as well as their treatment outcome.

Material and Methodology: Patients diagnosed to have endometrial cancer on the histopathology between January 2011 and December 2020; who had undergone surgery at B.P. Koirala Memorial Cancer Hospital were included in this descriptive cross-sectional study. Socio-demographic characteristics, clinical presentations, histologic type, treatment modalities and outcomes were obtained and analyzed.

Results: The mean age was found to be 58.32 years. Most were postmenopausal accounting for 86%. Medical co-morbidities were associated in 40% of patients. The most common presentation was postmenopausal bleeding seen in 68% of patients. In 48% of patients; total abdominal hysterectomy with bilateral salpingo-oophorectomy was conducted. The main histologic type was endometrioid carcinoma observed in 96% of patients. Low grade carcinoma was found in 78% of patients out of which grade 1 accounting for 50% and rest grade 2 while high grade carcinoma was found 22% of patients. 64% of patients required adjuvant therapy. Recurrence was seen in 16% of patients.

Conclusions: Endometrial carcinoma is common in the post menopausal age group. Endometrioid variety is the commonest histologic type. Clinicopathologic characters of endometrial carcinoma affect the prognosis of the patient.

Keywords: Adjuvant Chemotherapy, Clinicopathologic Characteristics, Endometrial Carcinoma, Obesity, Postmenopausal

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INTRODUCTION

Among gynecological malignancy endometrial malignancy is the most common in developed countries like North America and Europe. In 2020; 417,000 new cases and 97,000 deaths have been reported¹. Endometrial cancer is mostly seen in age group of fifty to sixty years.² Endometrial cancer is often detectable in the early stages; due to the nature of the disease. The 5-year survival in early stage endometrial cancer is 85-91%.³ In 1988, the International Federation of Obstetrics and Gynecology (FIGO) introduced surgicopathologic staging for endometrial carcinoma; which was later revised in 2009.⁴ The primary treatment of early stage, endometrial carcinoma is total hysterectomy with bilateral salpingoophorectomy (TH/BSO) and lymph node assessment.⁵ Lymphadenectomy in management of endometrial cancer remains a controversial issue. Lymphadenectomy is not performed routinely.^{6,7} In Nepal limited studies are available regarding endometrial cancer. Present study was conducted to know the clinicopathologic features of endometrial cancer patients; along with their treatment outcome; over 10 year's period.

MATERIALS AND METHODS

A descriptive cross sectional study was carried out at BP Koirala Memorial Cancer Hospital, Bharatpur, Chitwan. All patients of endometrial carcinoma reported on the histopathological biopsy who had undergone primary surgery were included in this study. Total 102 patients of endometrial cancer had undergone primary surgery between Jan 2011 and Dec 2020 at BPKMCH; out of which only 50 cases had complete data so rest 52 cases were excluded from the study. Ethical approval was taken from Institutional Review Committee of BPKMCH. Patient characteristics like age, parity, menopausal status, associated co morbidities, chief complaints, operative notes, histopathology reports, and follow up visits were reviewed from the medical record retrospectively. Staging was done according to the FIGO staging system. All of the obtained data of patients were analyzed with SPSS v 20. Mean, standard deviation was calculated for the continuous variables whereas frequency and percentage was used for categorical variables.

RESULTS

The mean age was found to be 58.32 years with a range from 39-79 years. 52% of patients were between 51-60 years whereas 34% were between 61-70 years; patients who were less than 40 years accounted only 4%. The majority of patients were

Table 1. Details of the patients (n=50)

Patient details	Number	Percent
Age in years		
Less than 40	2	4.0
40-50	4	8.0
51-60	26	52.0
61-70	17	34.0
71-80	1	2.0
Mean±SD	58±8.32	
Menopausal status		
Premenopausal	7	14.0
Postmenopausal	43	86.0
BMI(Kg/M2)		
<18.5	4	8.0
18.5-24.9	23	46.0
25-29.9	16	32.0
30 Or More	7	14.0
Medical Co Morbidities		
Diabetes	5	10.0
Hypertension	12	24.0
None	30	60.0
Diabetes and Hypertension	3	6.0

postmenopausal accounting for 86%. Medical co morbidities associated with disease were hypertension in 24%, diabetes in 10%, both hypertension and diabetes in 6%. 32% of patients had BMI 25-29.9 while 46% had normal BMI (18.5-24.9) (Table 1).

Most common presentation was postmenopausal bleeding in 68% followed by irregular menstruation in 14%, per vaginal discharge in 6%, postmenopausal bleeding along with per vaginal discharge in 6%. 2% of patients complained of pain lower abdomen, pain lower abdomen along with per vaginal discharge and pain abdomen along

Table 2: Treatments given to patients (n=50)

Treatments Given	Frequency	Percent
Type of Surgery		
TAH + BSO	24	48
TAH+ BSO + Omental Biopsy	6	12
RH + B/L PLND	4	8
TAH + BSO + B/L PLND	8	16
TAH + BSO + B/L PLND +Para-aortic LND	2	4
TAH +BSO + Omentectomy	3	6
Extrafascial Hysterectomy + BSO	1	2
TAH+BSO+Omental Biopsy + LN Sampling	2	4
Adjuvant Treatment		
Not Given	18	36.0
EBRT+ Vaginal Brachytherapy	18	36.0
Vaginal Brachytherapy	1	2.0
Chemotherapy + Radiotherapy	12	24.0
Chemotherapy Only	1	2.0

Table3: Histopathological findings of the patients; (n=50)

Histological Type	Frequency	Percent
Endometrioid Carcinoma	48	96
Serous Adenocarcinoma	2	4
Grade		
Grade 1	25	50
Grade 2	14	28
Grade 3	11	22
FIGO Stage		
Stage IA	23	46
Stage IB	17	34
Stage II	2	4
Stage III	6	12
Stage IV	2	4
Peritoneal Cytology		
Not Obtained	36	72.0
Obtained And Negative	13	26.0
Obtained And Positive	1	2.0
Lymphovascular Space Invasion		
Not Commented	14	28.0
Absent	35	70.0
Present	1	2.0

with postmenopausal bleeding each respectively. Nulliparity was seen in 6% of the total patients. Total abdominal hysterectomy and bilateral salpingo-oophorectomy was done in 48% and other type of surgery done in the rest of the patients (Table 2).

In total 18 patients were kept on follow up all of them had the endometrioid variety of endometri-

al carcinoma. Out of 18, 13 patients had stage IA grade1 disease while 3 had stage IA grade 2 disease and rest 2 patient had stage IB grade 2 disease. Vault recurrence was found in one patient after five years of surgery. She was given EBRT and vaginal brachytherapy. Metastasis in abdomen with peritoneal deposits was seen in other patient after eleven months of surgery. She finally died of disease; while she was on supportive treatment. Adjuvant therapy was given to 32 patients as there were risk factors for recurrence. The serous variety of endometrial carcinoma was found in 2 out of above 32 patients whom adjuvant therapy was given. Both of these patients had more than two third of myometrial involvement, one with grade 3 disease had cervical stromal invasion also while the other patient with grade 2 disease had systemic involvement with invasive deposit on omentum along with peritoneal wash cytology being positive for the malignancy. This patient with metastatic disease had recurrence 11months after surgery and was given palliative chemotherapy. Rest 30 patients had endometrioid variety of endometrial carcinoma with the following risk factors. Cervical stromal invasion was seen in 3 patients, deep myometrial involvement was seen in 14 patients, 10 patients had grade 3 disease, pelvic lymph nodes were positive in 3 patients, both pelvic and paraaortic lymph node involvement was seen in 1 patient, serosal and parametrial invasion was seen in 1 patient, ovaries were involved in 1 patient and omentum was found to have metastatic deposit in 1 patient. Recurrence was seen in 5 out of 30 patients, out of whom 3 had metastasis in lungs, 1 had vault recurrence and 1 had metastasis in liver. All of them were given palliative chemotherapy (Table 3).

DISCUSSION

Endometrial malignancy is common in elderly women who have attained menopause. The mean age of patients was 58.32 years in present study. Raham et al got the mean age of 60.11 6.71 years.⁸ In a study by Sancanklai Usta et al², 82.6% of patients had attained menopause. In the present study 86% of patients had attained menopause.

The presenting symptom of patients with endometrial cancer is postmenopausal bleeding seen in more than 90% of cases.⁹ In present study postmenopausal bleeding alone was present in 68%, postmenopausal bleeding associated with per vaginal discharge and pain abdomen in 6% and 2% respectively, in the study by Rathod et al postmenopausal metrorrhagia with or without abnormal vaginal discharge was present in 84.7% of pa-

tients.¹⁰

The association of endometrial cancer with diabetes, hypertension is well established and in the present study also the association was seen in 40% of patient, whereas 60% of patients had no co morbidity which is comparable to a Danish population study¹¹; where co morbidity was not found in 56.6% of patients.

As the body mass index increases, the risk of endometrial cancer increases. Cohort and case studies have shown this positive correlation among both Asians and non-Asians.³ However in the present study, 46% of patients had normal BMI, 32% of patients had overweight and 14% had obesity.

The endometrioid variety is the commonest histologic type of endometrial carcinoma². 96% of patients had endometrioid variety in the present study which is similar to study conducted by Raham et al⁸ where 92.6% had endometrioid carcinoma and all these endometrioid patients had grade 2 disease however in the present study 25 patients of endometrioid carcinoma had grade 1 disease, 13 patients of endometrioid carcinoma had grade 2 disease and 10 patient of endometrioid carcinoma had grade 3 disease. In the same study by Raham, all patients of serous subtypes had grade 3 disease, however in the present study out of 2 patients of the serous subtype 1 patient had grade 2 disease and other had grade 3 disease.

Because of the nature of the disease 73% of cases of endometrial carcinoma are detected on stage I³ which is similar in present study where 80% were in stage I.

Age more than 60 years, non-endometrioid variety, grade 3 tumor, the deep myometrial invasion, stromal invasion of cervix, serosal and adnexal involvement along with positive pelvic and para-aortic lymph nodes are the risk factor for recurrence after primary surgery where adjuvant therapy should be given.¹² 64% of patients having clinical and pathological risk factors as mentioned above required adjuvant therapy in the present study in the form of radiotherapy, chemotherapy, combined radiotherapy and chemotherapy. In study by Otsuka et al⁶ 55% of patients required adjuvant therapy, which is comparatively less than present study may be due to comprehensive surgical staging has not been performed in all patients in present study which was done in their study. 47.6% of patients required adjuvant therapy in a study by Binesh et al.¹³ Study by Otsuka et al got recurrence in 13% of patients, whereas in the present study 16% of

patients had recurrence.

CONCLUSIONS

Endometrial carcinoma is more common in the post-menopausal age group. The endometrioid variety was the commonest histology type. Though adjuvant therapy was given to all patients having unfavorable factors; recurrence rate was higher in the present study. So the present study demonstrates that the prognosis depends on the clinico-pathological character of endometrial cancer.

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