CLINICAL PROFILE OF ENDOMETRIAL CARCINOMA

Subhalakshmi Manappat Subrahmanian¹, Priya V²

¹Senior Resident, Department of Obstetrics and Gynaecology, Government Medical College, Kottayam.

²Assistant Professor, Department of Obstetrics and Gynaecology, Government Medical College, Kottayam.

ABSTRACT

BACKGROUND

Endometrial carcinoma is a disease of old women, typically arising in the sixth and seventh decades of life. In women of younger age groups, endometrial carcinoma is uncommon. These women have traditionally been thought to present with favourable pathological form.

MATERIALS AND METHODS

Study was conducted in the Department of Gynaecology in Medical College Hospital, Kottayam. Ethical Committee approval was taken. Data of women who were treated surgically for histologically proven carcinoma of endometrium were taken. A five-year retrospective data was analysed. Based on age, they were divided into two age groups.

Group A: Women aged less than 40 years.

Group B: Women aged 40 years or more.

Exclusion Criteria- Women who were treated initially by chemotherapy, radiotherapy or its combination.

Statistical analysis was performed using SPSS software (version 16).

RESULTS

In younger patients (Group A), most common presenting symptom was menorrhagia and they presented with higher grades of histology (papillary carcinoma endometrium 78.9%) and with advanced stage of disease. Most common presenting symptom in Group B was post-menopausal bleeding with a history of discharge per vaginum (10.7%) than Group A (5.3%). In Group B, majority of patients presented with endometrioid histology (87.1%) and most of them (47.9%) had early stage of disease. Clear cell histology was observed only in Group B (2.9%). Group A patients had their treatment delayed, as diagnosis was made later.

CONCLUSION

In patients less than 40 years, early intervention in the form of early decision for pathological sample taken via fractional curettage and its reporting may result in early detection of carcinoma at an earlier stage and with a good histological grading. Since some of fractional curettage reports of endometrial hyperplasia with atypia turned out to be carcinoma endometrium, these atypical hyperplasia changes must be evaluated properly. This can further be helped by ultrasonography or magnetic resonance imaging.

KEYWORDS

Clinical Profile, Carcinoma, Endometrium, Histopathology.

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BACKGROUND

Endometrial carcinoma is a disease of old women, typically arising in the sixth and seventh decades of life. In women of younger age groups, endometrial carcinoma is uncommon. These women have traditionally been thought to present with favourable pathological form. Endometrial carcinoma is the fourth most common cancer in women worldwide and is the eighth most common cause of death from malignancy.¹ Each woman is at 2.8% lifetime risk of developing endometrial carcinoma.² Worldwide each year 2,87,100 women are diagnosed with this cancer.³ The peak incidence occurs in age group 55 - 65 years. Previously, the disease was uncommon in younger women.

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Corresponding Author:

Subhalakshmi Manappat Subrahmanian,

Jyothis, Manganam,

P. O, Kottayam-686018,

Kerala.

E-mail: drsubhalakshimims@gmail.com

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However, recently there have been an increased risk of carcinoma endometrium in younger age groups, and most of them will have higher grade pathology. The morbidity created by this disease is higher in younger women. Here this study gains importance, which is to know the clinical profile of carcinoma endometrium in women of two age groups.

Often carcinoma endometrium present as an early stage disease and often managed without radiotherapy or radical surgery, but the death from carcinoma endometrium exceeds that from carcinoma cervix. This is because of early detection of carcinoma cervix by various screening methods. Here, discussing various clinical presentation and types of endometrial carcinoma encountered in our department.

MATERIALS AND METHODS

Study was conducted in the Department of Gynaecology in Medical College Hospital, Kottayam. Ethical Committee approval was taken. Data of women who were treated surgically for histologically proven carcinoma endometrium were taken. A five-year retrospective data was analysed. Based on age, they were divided into two age groups.

- Group A: women aged less than 40 years.
- Group B: women aged 40 years or more.

Patients were identified and their medical register were taken from tumour registry data in Department of Obstetrics and Gynaecology and from Department of Pathology in Government Medical College, Kottayam.

Inclusion Criteria

Women diagnosed histologically as carcinoma endometrium and who were treated by primary surgical management.

Exclusion Criteria

Women who were treated initially by chemotherapy, radiotherapy or its combination.

Clinical profile of patients regarding age, parity, clinical presentation (symptoms), menopausal status, family history of malignancy were initially taken. Later their intraoperative findings were analysed regarding staging of disease. Also, analysis regarding preoperative histopathology report of endometrial curettings that lead to the diagnosis of endometrial malignancy were studied. These patients' post-operative histopathology reports of the specimen were collected from register. This was also assisted by taking data from register in Pathology Department.

Statistical Method

Statistical analysis was performed using SPSS software (version 16). Descriptive statistics and inferential statistics with 95% confidence limits were calculated. Difference between groups were evaluated using chi square test.

RESULTS

In younger patients (Group A), most common presenting symptom was menorrhagia and they presented with higher grades of histology (papillary carcinoma endometrium 78.9%) and with advanced stage of disease. Most common presenting symptom in Group B was post-menopausal bleeding with a history of discharge per vaginum (10.7%) than Group A (5.3%). In Group B, majority of patients presented with endometrioid histology (87.1%) and most of them (47.9%) had early stage of disease. Clear cell histology was observed only in Group B (2.9%). Group A patients had their treatment delayed as diagnosis was made later.

History of Menorrhagia	Age				Total	
	< 40		≥ 40			
	No.	%	No.	%	No.	%
Yes	19	100.0	7	5.0	26	16.4
No	0	.0	133	95.0	133	83.6
Total	19	100.0	140	100.0	159	100.0
Table 1. Table showinga Menorrhagiaa History in Patients						

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Chi square = 110.4, p = .000

Figure 1. History of Menorrhagia in Group A

Figure 2. History of Menorrhagia in Group B

In Group B, 10.7% presented with discharge per vaginum while in Group A 5.3% had discharge per vaginum along with menorrhagia. But women in Group B had more tendency to present with discharge per vaginum.

History of Discharge PV	Age				Total	
	< 40		≥ 40			
	No.	%	No.	%	No.	%
Yes	1	5.3	15	10.7	16	10.1
No	18	94.7	125	89.3	143	89.9
Total	19	100.0	140	100.0	159	100.0

Table 2. Table showing Discharge per Vaginum in Patients Studied

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Chi square = .549, p = .738

Figure 3. History of Discharge per Vaginum in Group A

Figure 4. History of Discharge per Vaginum in Group B

Most of the patients in Group B who presented with carcinoma endometrium were postmenopausal (95%). Regarding the family history in Group A 5.3% presented with family history of Carcinoma endometrium, while in Group B it was 3.6%. In Group B 2.9% women, each had family history of Carcinoma colon and Carcinoma breast respectively. Also 1.4% women in Group B had history of carcinoma ovary in their family.

On analysing adnexal involvement, 7.9% presented with an ovarian mass. In Group B, 1.4% had parametrial involvement, while none of the patients in Group A had parametrial involvement. Hence, it was concluded that patients in Group B have more tendency to present with an adnexal mass or parametrial involvement. In Group A, 73.7% presented with histopathology report of carcinoma endometrium, 15.8% had complex hyperplasia with atypia, 5.3% each with simple hyperplasia and simple hyperplasia with atypia. In Group B 75.7% had fractional curettage showed histopathology of Carcinoma endometrium, 10.7% had complex hyperplasia with atypia, 8.6% had simple hyperplasia with atypia. Madhuri N Bhagde also has the same study result that the histopathology of endometrial curettings may not always help in diagnosing endometrial Carcinoma.⁴ A strong suspicion is needed to diagnose this in patients, especially in premenopausal or perimenopausal age groups. In Group A, 26.3% presented with Stage 1B followed by 21.1% each by Stage IIIA and Stage IA. None of them presented with Stage IIIC2 and above. In Group B, 42.1% presented with Stage 1A followed by 37.1% with Stage IB, 7.9% presented with Stage IIIA. None of them presented with Stage IIIC2 and above. In study by Uharcek Petal, they found that the deeper myometrial invasion was significantly associated with age.⁵ Endometrial adenocarcinoma was the most common histological form of endometrial carcinoma in Group B (87.9%), while in Group A 78.9% presented with papillary serous histology. Only 21.1% patients had endometrial adenocarcinoma histology in Group A, moreover none of the patients had clear cell or other rare varieties of histology. On the other hand, in Group A, 10.1% patients presented with adenocarcinoma histology and 2.9% patients with clear cell histology. So in Group A, patients were presenting with more aggressive form of histology compared to Group B. Among total, commonest histological type after surgery was adenocarcinoma (79.2%). In Group A, papillary carcinoma 78.9% were common than adenocarcinoma.

Tissue Biopsy HPR	Age				Total	
	< 40		≥ 40			
	No.	%	No.	%	No.	%
Adeno Ca	4	21.1	122	87.1	126	79.2
Papillary Serous	15	78.9	14	10.0	29	18.2
Clear Cell	0	.0	4	2.9	4	2.5
Total	19	100.0	140	100.0	159	100.0
Table 3. Table showing Tissue Biopsy Histopathology Report in Two Age Groups						

Chi square = 53.3, p = .000

Figure 5. Histopathology Report in Group A

Figure 6. Histopathology Report in Group B

In study by Madhuri N Bhagde, 71.43% were adenocarcinoma.⁴ Conversely, in Japan Kaku et al said that patients younger than 40 years had endometrioid histology and well-differentiated histology.⁶ In Group A 47.4% presented with moderately differentiated histological grading, 26.3% each presented with Grade 1 and Grade 3. In Group B 76.4% presented with well-differentiated grading of histology 11.4% with Grade 2, 12.1% with Grade 3. So Group A presented with higher degree of histology, while in Group B 76.4% presented with lower degree of differentiation. Pellerin et al found that 52.6% had Grade 1 histology, 26.3% had Grade 2 and 21.1% had Grade 3 histology.⁷ Their study concluded that younger age group had lower incidence of advanced stage of disease, higher degree of tumour differentiation.

DISCUSSION

Endometrial carcinoma is one of the leading site of carcinoma in Indian females with an age adjusted incidence rate vary from 4.8 to 2.7 per 100,000 across different carcinoma regions.⁸

In the retrospective study of 159 patients diagnosed with Carcinoma endometrium admitted in the Department of Obstetrics and Gynaecology in Government Medical College, Kottayam, 19 were younger than 40 years at the time of diagnosis (11.9%) and 150 (88.1%) were 40 years and older. Among all patients, 89.3% were multiparous and 10.7% were nulliparous). Study by Manchana et al in Thailand found out

that up to 10% (42/423) of endometrial adenocarcinoma, patients were younger than age of 40 years.⁹ The higher incidence of nulliparity was significantly demonstrated in Group A (less than 40 years) 80.

In patients aged more than 40 years, majority of patients were multiparous, similar was the percentage of multiparas in age less than 40 years (63.2%). Among nulliparous, Group A had a higher chance of developing Carcinoma endometrium. In a study conducted by Gallup et al, nulliparity among Group A were 44% and in Group B 10.5%.¹⁰ Our study found that nulliparous among Group A were 36.8% and Group B were 7.1%. In Group A nulliparous had a more chance of Carcinoma endometrium (chi square being 15.5 and p value .000). Nulliparous had more chance of developing Carcinoma endometrium early, especially in Group A. In Group A all of them presented with menorrhagia, while in Group B 5% only presented with menorrhagia.

CONCLUSION

In this study, the overall distribution of tumour stage and grade were not of the same for younger women and the older women. Younger women with endometrial carcinoma are found to be at higher risk. Patients less than 40 years had higher incidence of advanced stage disease and higher degree of tumour differentiation. Reason for advanced stage of the diagnosis in younger group in our study may be due to delay in seeking health access.

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