FREQUENCY OF ENDOMETRIAL CARCINOMA IN HISTOPATHOLOGY OF HYSTERECTOMY SPECIMEN IN HYDERABAD

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ABSTRACT

Objective: This study was conducted to find the frequency of endometrial carcinoma in histopathology specimens in Hyderabad.

Study Design: Descriptive study

Place and Duration of Study: All hysterectomy specimens received in the histopathology departments of Isra University Hyderabad and Liaquat University of Medical and Health Sciences Hyderabad during the period of January 2005 to December 2006 were collected.

Materials and Methods: A randomized study of 100 cases undergoing hysterectomy was carried out. Maximum number of women who underwent hysterectomy was in the age group of 25-75 years. Two proformas were designed to get the clinical information and gross and histopathological findings. Specimens were preserved in 10% formalin and thorough naked eye examination was done. Representative blocks were taken and processed for paraffin embedding.

Results: Out of 100 cases, endometrial carcinoma was found in 07 (7%) cases. Mean age of the patient was 43.06 ± 7.34 years while the mean age of endometrial carcinoma was 50.71±9.32 years. Abnormal menstrual flow was the most common complaint. Most of the cases (N= 06) were present in group B that is above the age of 40 years. Furthermore out of these 07 diagnosed cases, 06 cases were present in multiparous women while only one case was found in nulliparous woman.

Conclusion: Frequency of endometrial carcinoma is 7% in women of Hyderabad. It is more common above the age of 40 years and in multiparous and grandmultiparous women.

Key words: Endometrial carcinoma, Histopathology, Hysterectomy Specimen

INTRODUCTION

Cancer of the endometrium is the most common gynecologic malignancy in the United States and accounts for 6% of all cancers in women and is also the third most common cause of gynecologic cancer death (behind ovarian and cervical cancer.[1] However in developing counties it is much less common than cancer of cervix .[2] Cancer of endometrium most commonly presents in age group of 50-59 years. [3,4] The patients usually presents with abnormal menstrual periods, bleeding between normal periods in premenopausal women or with vaginal bleeding and/or spotting in postmenopausal women.[5] The risk factors of development of endometrial carcinoma could be: effects of hormones[6,7], Diabetes[8], Obesity[9,10], reduced physical activity for long time [11,13] and other factors including endometrial hyperplasia, pelvic radiation therapy, breast cancer , ovarian cancer, intake of food rich in fat and cholesterol and animal origin nutrient can increase the risk. On the other hand intake of plant origin nutrients along with dietary fiber, retinol, beta-carotene, vitamin C, vitamin E and vitamin supplementation may decrease the risk of endometrial cancer .[14, 16.]

Endometrial curettage, endometrial biopsy or aspiration may help in the diagnosis of endometrial cancer. Furthermore the tumor marker CA-125 is sometimes checked, since this can predict advanced stage disease. [17]

The present study was designed to find out the frequency of endometrial carcinoma in patients who were undergoing hysterectomy due to the indication of irregular or cyclical heavy per vaginal bleeding. During data collection a case of endometrial carcinoma was found in younger patient so age was also taken as a parameter to find out the frequency of endometrial carcinoma in younger women.

MATERIALS AND METHODS

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The material for study consisted of paraffin blocks from hystrectomized uteri of 100 patients received in the departments of Pathology, Isra University Hyderabad and Liaquat University of Medical and Health Sciences Jamshoro during January 2005 to December 2006.

Hysterectomy specimens received included pre-menopausal and post-menopausal women, who were divided according to their age into two groups of <40 years and >40 years of age.

Hysterectomies done due to indication of any complication of pregnancy such as rupture of uterus or anti-partum hemorrhage or postpartum hemorrhage were not included. The patients were selected regardless of age, parity and social class from Hyderabad. All included subjects were interviewed. The interview included questions on menstrual and reproductive histories. Clinical histories and findings were recorded according to proforma. Specimens were preserved in 10% formalin and processed for paraffin embedding.

Procedure

Thorough naked eye examination was done to see any gross abnormality which was noted according to proforma and representative blocks were taken from the endometrium, myometrium, cervix and from any fibroid, polyp or growth if present. Then the blocks were dehydrated in varying concentrations of alcohol and embedded in blocks of paraffin wax by using L shaped moulds or plastic moulds and were allowed to solidify and frozened to hard in freezer. These paraffin wax blocks were cut into 2-5 micron thick sections by using rotatory microtome. The slides were stained with Haematoxylin and Eosin stain.

Data Analysis

Data had been analyzed using SPSS version 10. Descriptive statistics were used to describe the data.

RESULTS

The mean age of the patients from whom 100 hysterectomy specimens were collected, was 43.06 ± 7.34 years, with age range, 25 to 75 years. They were divided into two groups; Group A (<40 years): 46% and Group B (>40 years): 54%.

The results show that, out of 100 cases, 33% were normal, while 67% had endometrial diseases. The mean age of endometrial carcinoma was 50.71±9.32 years.

The results show that, 7 (7%) cases of malignant endometrial tumor were diagnosed out of 100 cases, out of which one case belongs to < 40 years of age group and 6 belong to > 40 years of age group (Table 1).

Of the 7 cases of endometrial carcinoma diagnosed, one case was present in nulliparous woman while 6 cases were present in multiparous and grandmultiparous women (Table 2).

Table 1: Frequency of Endometrial Carcinoma in hysterectomy specimen

Endometrial Carcinoma	Age groups		No of Cases
	(<40 years)	(>40 years)	
Present	01	06	07
Absent	45	48	93
Total No Cases	**46**	**54**	**100**

Table 2: Frequency of Endometrial Carcinoma and Parity

No of Cases	Parity		Total
	NP&PP	MP&GP	
Present	01	07	07
Absent	29	93	93
Total	**30**	**70**	**100**

Key: NP&PP: Nulliparous and primiparous (1 child).
MP&GP: Multiparous (having 2-4 children) and grandmultiparous (having 5 and above)

DISCUSSION

Hysterectomy is commonly done above the age of 40 years and it is also a commonly performed operation in our country, for irregular heavy, uterine bleeding, for achieving birth control and uterine pathological lesions like leiomyoma, adenomyosis, endometrial hyperplasia and uterine malignancy.[18]

In view of different socio-economic cultural and religious pattern of Pakistani women, there is likelihood of existence of different pattern and prevalence of uterine and cervical lesion.

This study was thus conducted to study the frequency of endometrial carcinoma found randomly in hystrectomized uteri and to study the frequency of endometrial carcinoma in parous women.

In present study, it was found that, the maximum number of cases was encountered in >40 years of age, as compared to <40 years. These results are consistent with the results of the study conducted by Adelusola and Ogunnivi, who found that endometrial carcinoma is more common above the age of 40 years[19].

The mean age of endometrial carcinoma was 50.71±9.32 year. This finding is not consistent with the results of the study conducted by Soliman et al. He reported that, the mean age for endometrial carcinoma in women of USA was 61 years[20]. This means women of Hyderabad region develop endometrial carcinoma at a little younger age as compared to western countries.

The risk factors for the development of endometrial carcinoma in women younger than 50 years could be nulliparity or low parity, obesity, irregular menstrual cycle, polycytic ovarian syndrome etc. [21] In present study out of 7 cases of endometrial carcinoma, one case was present in nulliparous women and 6 in multiparous and grandmultiparous women. These results are not consistent with results of the studies conducted by Jakrakis et al and Soliman et al who reported that endometrial carcinoma is more common in nulliparous women. [20,21]

CONCLUSION

It was concluded from this study that frequency of endometrial carcinoma is 7% in women of Hyderabad. In view of relatively less small sample size (100) studied in present study, a large series of prospective cases should be studied with strict documentation of clinical data as age, years of marriage, age at marriage, and socio-economic conditions in order to get a more precise epidemiological data about endometrial carcinoma. Furthermore, factors responsible for the development of endometrial carcinoma at a little younger age group and in multi and grandmultiparous women should be sorted out.

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