

FREQUENCY OF PRIMARY UTERINE MALIGNANCY IN HYSTRECTOMY SPECIMENS OF POSTMENOPAUSAL WOMEN - A STUDY OF 225 CASES AT COMBINED MILITARY HOSPITAL PESHAWAR

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ABSTRACT

Objective: To determine the frequency of primary uterine malignancy in hysterectomy specimens in women with postmenopausal bleeding.

Study Design: A descriptive cross-sectional study.

Place and Duration of Study: It was conducted in the department of histopathology at Combined Military Hospital, Peshawar from 1st September 2010 to 31st May 2011.

Material and Methods: A total of 225 hysterectomy specimens of postmenopausal women were examined grossly and microscopically to analyse the underlying pathology.

Results: The mean age of patients with malignant diseases was 56.4 years and with benign diseases 49.3 years. Out of 225 patients 215 (95.6%) were found to have benign pathologies and 10 (4.4%) had malignant lesions. The frequency and histological pattern of primary uterine malignancy was; endometrial carcinoma 3.1%, cervical carcinoma 0.9% and leiomyosarcoma 0.4%. The benign pathologies included leiomyoma 35.6%, atrophic endometritis 16.4%, endometrial hyperplasia 15.1%, adenomyosis 11.1%, endometrial polyp 10.2%, adenomyoma 6.7% and endometrial stromal nodule 0.4%.

Conclusion: This study shows that frequency of malignancy in postmenopausal women is low in our set up and most of the underlying pathologies are benign. The most frequent malignancy found in postmenopausal women is endometrial carcinoma followed by cervical carcinoma.

Keywords: Endometrial Cancer, Hysterectomy, Postmenopausal.

INTRODUCTION

Post menopausal bleeding (PMB) represents a common clinical problem in primary care, largely because of suspicion of an underlying endometrial malignancy¹. Postmenopausal bleeding (PMB) is defined as bleeding that occurs after one year of amenorrhea in a woman who is not receiving hormone therapy (HT). Women on continuous progesterone and oestrogen hormone therapy can expect to have irregular vaginal bleeding, especially for the first six months. This bleeding should cease after one year. Women on oestrogen and cyclical progesterone should have a regular withdrawal bleeding after stopping the progesterone². The PMB can be due to malignant or benign pathologies. Endometrial cancer may be found in 1% to 25% (typically quoted as 10%)

of women with unexpected PMB, depending on age and risk factors. Endometrial cancer is the most common gynaecologic malignancy in postmenopausal women. More than 90% of cases occur in women older than 50 years and abnormal bleeding is the most common presenting symptom. Vaginal bleeding, however, may be due to many causes other than cancer and is a common problem in postmenopausal women, occurring in as many as 1 per 10 women older than 55 years. Although PMB is often due to other conditions, endometrial cancer is the most serious and worrisome pathology. Thus, accepted practice in the United States includes further evaluation to exclude endometrial carcinoma in women with PMB³. The situation is different in Pakistan and multiple studies conducted in different institutions of the country showed a high prevalence of malignancy in patients with postmenopausal bleeding. Most probably it reflects the non availability of

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screening programmes, poverty, lack of education and ignorance regarding women's health⁴.

The rationale of present study was to provide latest data regarding frequency of primary uterine malignancy in women with postmenopausal bleeding in this region and comparing it with the already available national and international data. The data from this study will be beneficial to find the frequency of malignant causes, of PMB in our female population thus drawing attention of health personnel towards the gravity of the disease and encouraging them to offer suggestions for improving techniques of investigations like ultrasound, Pap smear, endometrial biopsy and hysteroscopy preoperatively. By knowing the frequency of malignancy in our female population with PMB, the data from this study will be able to determine whether the microscopic assessment of macroscopically normal hysterectomy specimens can yield any significant findings that could contribute to alter subsequent clinical management.

MATERIAL AND METHODS

This cross sectional descriptive study was conducted from 1st September 2010 to 31st May 2011 at Combined Military Hospital (CMH) Peshawar. During this period a total of 225 cases of hysterectomy specimens of postmenopausal women were included in the study.

All the hysterectomy specimens of postmenopausal women received at the histopathology department of CMH Peshawar were the source of data for this study. All women with postmenopausal bleeding not receiving any hormone replacement therapy and no previous history of any malignant disorder attending the Gynaecology OPD, undergoing elective abdominal or vaginal hysterectomy were included in the study.

Cases already diagnosed as uterine malignancy, metastatic tumors, postmenopausal women on hormone replacement therapy and

poorly fixed autolysed specimens were excluded from the study.

A prompt problem oriented history including clinical presentation and investigations including Pap smear, diagnostic dilatation and curettage (D and C) and hysteroscopy was taken and data entered in the proforma designed to record all the information including clinical detail, gross and histological findings.

Data was analysed using SPSS version 12. Descriptive statistics were used to describe the results.

RESULTS

A total of 225 patients were included in this study. Among these patients 97.3% were married while 2.7% were unmarried. Out of these 225 patients, 10 (4.4%) cases were malignant while 215 (95.6%) were benign (table-1).

On gross findings of the hysterectomy specimens 40.4% were unremarkable with no abnormality or lesion while majority of the specimens 59.6% had either a growth, mass or necrotic debris filling or distorting the uterine cavity. Among these specimens only one was unremarkable on gross examination but yielded the finding of malignancy on microscopic examination. The rest of the specimens, with no

Table-1: Frequency of benign and malignant diseases in patients of post menopausal bleeding (PMB).

Uterine Diseases	Frequency (%)
Benign disease	215 (95.6%)
Malignant disease	10 (4.4%)
Total	225 (100%)

gross abnormality, were all of benign pathology.

The histopathological findings showed that out of 225 cases, 215 (95.6%) were benign and 10 (4.4%) were malignant. The most frequent malignancy seen was endometrial carcinoma (3.1%), all of which were endometrioid carcinoma, followed by cervical carcinoma (0.9%), all of which were squamous cell carcinoma and leiomyosarcoma (0.4%). In benign

conditions, the most frequent disease was leiomyoma (35.6%) while the least common was endometrial stromal nodule (0.4%). The other benign pathologies noted were atrophic endometritis (16.4%), endometrial hyperplasia (15.1%), adenomyosis (11.1%), endometrial polyp (10.2%) and adenomyoma (6.7%).

The mean age of the patients was 49.6 years, out of which malignant disorders were present in patients above 50 years while maximum benign pathology was seen in age range of 45-49 years.

DISCUSSION

Hysterectomy is one of the most commonly performed gynaecological operations in postmenopausal women. Twenty percent of women in the UK and 37% in the USA undergo hysterectomy by the age of 60 years. Frequency of hysterectomy in women is 25% in the USA, 10.5% in Denmark and 28/10,000 in NHS hospitals of England and Wales per annum. Pakistani women seek help late as compared to women from developed countries so conservative treatment is usually not effective in them and most of the time hysterectomy is the best option for their gynaecological problems. Abdominal hysterectomy rate is 4.4/ 1000 in Pakistan. In USA 91.7% of hysterectomies are for benign indications⁵.

The results of our study showed a low frequency of malignancy (4.4%), which is in accordance with another study performed in our country at Jinnah Postgraduate Medical Centre (JPMC) Karachi showing 94.1% benign and 4.3% malignant lesions⁶. Another local study showed a low frequency of malignancy i.e. 6.54%⁷ while in a study carried out at University Hospital Sindh, showed that the pattern of pelvic masses among women in Sindh indicated uterine malignancy of 1.82%⁸ which is even lower as compared to our present study. In an international study at Ahmadu Bello University Teaching Hospital Zaria, similar results of low frequency of uterine malignancy were observed⁹. Many other local studies, on the other hand, show a high prevalence of malignant disorders in postmenopausal women. One such local study

showed a high rate of malignant disorders (30%) with carcinoma cervix and endometrium having equal contribution⁴. Similarly an international study carried out in Tunis also showed an increased frequency of malignant pathologies (9.2%) in post menopausal women¹⁰, which is much higher as compared to our study. This might be due to different risk factors like effects of hormones, obesity, sedentary life style, intake of food rich in cholesterol and animal fat, pelvic radiation therapy, and endometrial hyperplasias. The pattern of primary uterine tumours is different worldwide according to geographical areas. Cervical cancer is one of the leading cancers in women worldwide but this is not the case in our present study. The most common malignancy found in our study was endometrial carcinoma (3.1%) and second most common was cervical carcinoma (0.9%). This is consistent with most of the national data like a study done at Lady Willingdon Hospital, Lahore showing 28% cases of endometrial carcinoma while only 8% cases of cervical carcinoma¹¹. Another study showed most common uterine malignancy as adenocarcinoma of endometrium⁶. Although the frequency of cervical cancer is low in Pakistan than elsewhere in the world, yet the mortality rate is high. This is due to lack of knowledge and awareness regarding screening tests like Pap smear and thus late presentation of the patients with advanced stage of disease.

In reference to the age group, one study showed that mean age of postmenopausal women with malignant diseases was 65 years¹¹. In a study carried out at United States the mean age of endometrial carcinoma in postmenopausal women was 61 years¹² while another study showed frequency of malignancy in comparatively younger age of women with PMB (mean age 50.7 years)¹³. Similarly a study in Tehran reported that mean age of women having malignant disorders was 50 years at the time of diagnosis¹⁴. The data from our present study holds the position in the middle as the mean age of postmenopausal women having malignant diseases was found to be 56.4 years. The

development of malignancy at a little younger age as compared to women of Western countries might be due to shorter life span of women in developing countries, but a definite risk factor or cause could not be identified.

CONCLUSION

It is concluded that frequency of malignancy in postmenopausal women is low in our set up and most of the underlying pathologies are benign. The most frequent malignancy found in postmenopausal women is endometrial carcinoma followed by cervical carcinoma. Though frequency of malignant lesions in women with postmenopausal bleeding is comparatively low, however all of them need a thorough evaluation and investigations.

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