ORIGINAL ARTICLE

Pattern of Histopathologically Confirmed Uterine and Ovarian Anomeli Among 98 Hysterectomies Attending a Private Medical College Hospital, Dhaka

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ABSTRACT

Background: Endometrial diseases ranked among the most common gynecological disorders that affect women globally. This study was undertaken to identify the most common pathologies identified in hysterectomy specimens.

Materials & Methods: The present study was conducted in the Department of Pathology, Anwer Khan Modern Medical College, Dhaka over a period of 6 months from July to December 2013. Ninety eight (98) hysterectomy specimens were received by the pathology department during this period. On receiving the hysterectomy specimens, the gross features were noted. A detailed microscopic examination was done to arrive at an accurate diagnosis.

Result: Most of the women 54% were 40-49 years age group followed by 25% in 30-39 years age group. Chronic cervicitis and adenomyosis were the commonest pathological findings in (80.6%) and (32.7%) respectively. Other pathologies identified include Leiomyoma (23.5%), endometrial hyperplasia (17.4%), endometrial polyp (4.1%) and PID with hemorrhagic infection (1.0%). Two cases of carcinoma cervix (2.0%), two local invasion of tumors (2.0%) and one adenocarcima (1.0%) was found. Type of operation most common is total hysterectomy with oophorectomy (51.0%).

Conclusion: Hysterectomy still remains the widely used treatment modality even in developed countries. The ultimate diagnosis is only on histology, so every hysterectomy specimen should be subjected to histopathological examination. Benign pathologies are more common than their malignant counterparts and the most common pathologies identified in hysterectomy specimens are chronic cervicitis, adenomyosis and leiomyoma.

Key Words: Histopathology, Endometrial diseases, cervicitis, adenomyosis, leiomyoma

Introduction

Endometrial diseases ranked among the most common gynecological disorders that affect women globally.[1] These diseases cut across all age groups and contribute significantly to increased maternal morbidity and mortality.[1] Studies have shown that histopathological patterns of diagnosis varies with respect to the age of patients.[2] Most young women of reproductive age present more commonly with changes associated with hormonal imbalance.[2] However, older women of premenopausal and postmenopausal age group present more commonly with endometrial hyperplasia and endometrial carcinoma.[2,3]

Hysterectomy is one of the common surgical procedures in peri and postmenopausal women; it is the second most common surgical procedure in USA.[4] According to the center of disease prevention and control about 5 out of every 1000 women undergo hysterectomy each year in USA.[5]

Hysterectomy is considered a life saving procedure in women with certain types of cancer and in acute uterine hemorrhage. It also improves the quality of life for women with certain uterine pathologies such as fibroids, endometriosis and uterine prolapse. With accurate selection of patients and the route of

hysterectomy, morbidity and mortality is low.[5] To the best of our knowledge up-to-date data is lacking about histological pattern of hysterectomies in Bangladeshi women. This study was undertaken to identify the most common pathologies identified in hysterectomy specimens. 98 cases, over a period from July 2013 to December 2013 formed the subject for the present study. This study confirms that benign pathologies are more common in hysterectomy specimens than their malignant counterparts among Bangladeshi women.

Materials and Method

The present study was conducted in the Department of Pathology, Anwer Khan Modern Medical College, Dhaka over a period of 6 months from July to December 2013. Ninety eight (98) hysterectomy specimens were received by the pathology department during this period. On receiving the hysterectomy specimens, the gross features were noted. Multiple bits were taken from the representative sites, processed and paraffin blocks were made. The blocks were sectioned and stained with hematoxylin and eosin. A detailed microscopic examination was done to arrive at an accurate diagnosis. In cases of more than one pathologic diagnosis, both diagnoses were counted by including them separately in their assigned category. Patient's age, histopathologically confirmed diagnosis as well as the type of hysterectomy were reviewed.

The data was analyzed using SPSS 19 version. Descriptive statistics were used to describe data.

Results

Hysterectomies were distributed over a wide age ranging from 26 years to 70 years with mean age 43.61±7.7. In 6 months duration, total 98 hysterectomy specimens received in the Pathology department of Anwer Khan Modern Medical College. Of these, most of the women 54% were 40-49 years age group followed by 25% in 30-39 years age group. (Figure-1)

On histopathology in many hysterectomy specimens, more than one type of pathology was found. Chronic cervicitis and adenomyosis were the commonest pathological findings in (80.6%) and (32.7%) respectively as illustrated in Table 1. Other pathologies identified include Leiomyoma (23.5%), endometrial hyperplasia (17.4%), endometrial polyp (4.1%) and PID with hemorrhagic infection (1.0%). (Table -1)

Two cases of carcinoma cervix (2.0%), two local invasion of tumors (2.0%) and one adenocarcima (1.0%) was found. Type of operation most common is total hysterectomy with oophorectomy (51.0%) followed by total hysterectomy without oophorectomy (45.9%) and subtotal hysterectomy (3.0%)(Figure-2)

Oophorectomy was common in age group 40-49 years (58%) and 30-39 years (20%). (Fig-3)

Among benign ovarian disorder, simple cyst 4.1%,serous cystadenoma 3.1%, cystic teratoma 2.0%,mucinous cystadenoma 1.0%. And in malignant counterpart secondary tumour invasion 2.0% and clear cell adenacarcinoma 1.0%.

Table I: Histological types

Histological types	Frequency (%)
Cervix and uterus	
Chronic cervicitis	79 (80.6)
Chronic cervicitis with squamous metaplasia	03(3.1%)
Chronic cervicitis with hyperkeratosis	03(31%)
Carcinoma cervix	02(2.0%)
Proliferative endometrium	40(40.8%)
Secretory endometrium	11(11.2%)
Simple endometrial hyperplasia	17(17.35%)
Endometrial polyp	04(4.1%)
Adenomyosis	32(32.7%)
Leiomyoma	23 (23.5%)
PID with haemorrhagic infection	01(1%)
Senile cystic atrophy	3 (3.1%)
Adenocarcinoma	01(1%)
Secondary tumour invasion	02(2%)
Ovary	
Simple cyst	04(4.1%)
Serous cystadenoma	03(3.1%)
Mucinous cystadenoma	01(1.0%)
Cystic teratoma	02 (2.0%)
Clear cell adenocarcinoma	01(1.0%)
Secondary tumour invasion	02(2.0%)

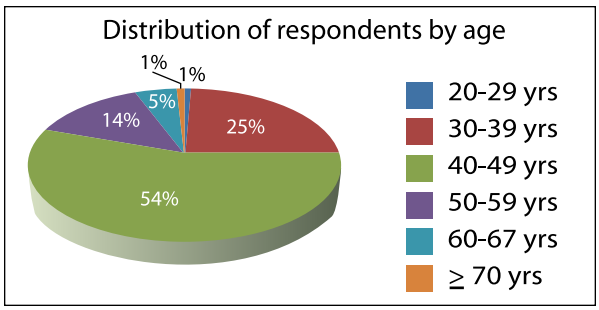

Figure-1

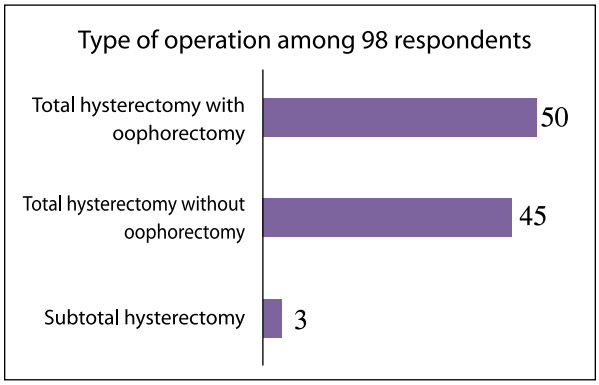

Figure-2

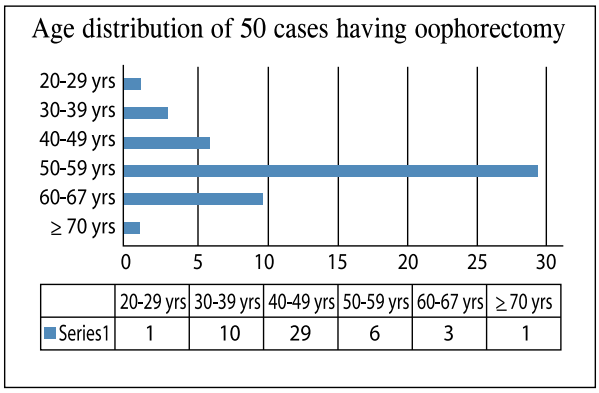

Figure-3

Discussion

The mean age at hysterectomy in this study was 43.61years. Hysterectomies were distributed over a wide age ranging from 20 years to 80 years in a study of 500 hysterectomies. Of this fifty-two percent (51.40%) cases were encountered in 40-49 years which is the most common age group.[6] According to data of Center for Disease Control (1994-1999) approximately 600,000 hysterectomies are performed annually in the United States and an estimated 20 million U.S women have had a hysterectomy. Women aged 40-44 years had a significantly higher hysterectomy rate compared with any other age group in the U.S and 52% of all hysterectomies were performed among women aged <44 years.[7] Since early 20th century,hysterectomy is a definitive treatment of pelvic pathology including fibroid, abnormal heavy bleeding, chronic pelvic pain, endometriosis, adenomyosis, uterine prolapsed, pelvic inflammatory disease and cancer of reproductive organs.[8] A study in Tehran showed 40.1 % women of 45-55 years had hysterectomy operations.[9]

Adenomyosis and leiomyoma are commonest pathology seen in this study which is similar with many other studies. Incidence of leiomyoma 25.8% in Saudi Arab,78% in USA, 48% in Nigeria and 8% in Sweden.[10,11,12,13]

In a study by Gupta G, adenomyosis,endometrial polyp and ovarian cyst were 10.9%,1% and 2.8% respectively.[14] In study 1 endometrial polyp was 3% which is a bit lower than our study findings (4.1%).

A study by 1 showed Proliferating endometrium 22.5%,secretory endometrium 19.9%, and simple endometrial hyperplasia 10.0%. Similar report was documented for proliferating (21.7%) and secretory endometrium (12.4%) by other researchers.[15,16,17]

Findings for proliferating endometrium is much higher in our study, 40.8% but secretory endometrium more or less similar 11.2%.

In our study endometrial polyp 4.1%, endometrial hyperplasia 17.35% and endometrial carcinoma 1.0%. The results are similar with other studies. Gerald D observed endometrial polyp 3% cases[6], Muzzafar et al reported endometrial hyperplasia in18.3% case18 and Sarwa et al showed endometrial carcinoma in 1.7% case[1]. A lower value 0.5% observed by Jairajpuri et al.[19]

Conclusion

Hysterectomy still remains the widely used treatment modality even in developed countries. The ultimate diagnosis is only on histology, so every hysterectomy specimen should be subjected to histopathological examination. Benign pathologies are more common than their malignant counterparts and the most common pathologies identified in hysterectomy specimens are chronic cervicitis, adenomyosis and leiomyoma.

Conflict of Interest: none

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