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Research Article

Clinico pathological study of hysterectomy for benign conditions of the uterus

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ABSTRACT

Background: Uterus, being a vital female reproductive organ is subjected to many different pathological conditions. The objective was to study the correlation between the preoperative clinical diagnosis and the final histopathology of hysterectomy specimens.

Methods: This is a retrospective study by the authors of all cases who underwent a hysterectomy over a 2 year period (2012-2014). All hysterectomies performed for malignant indication were excluded. The specimen was sent for histopathology examination to the pathology department of Vanivilas Hospital and Bowring and Lady Curzon Hospital, Bangalore, India. All hysterectomy specimens were fixed in 10% buffered formalin, paraffin embedded and 4-5µm thick sections were cut and stained with haematoxylin and eosin. All the collected data was tabulated and statistically analyzed by using SPSS software.

Results: During the 2 year study period there were a total of 200 cases eligible for analysis. Leiomyoma was reported in 31% of specimen. Adenomyosis was reported in 20% of present cases. Chronic cervicitis was observed in 51% of cases in present study. Endometritis was observed in 3% of cases in present study. Tubercular endometritis was observed in 0.5% of cases. Endometrial polyp was observed in 1% of case in this study. 10% of the specimen was unremarkable and no pathology could be found.

Conclusions: All hysterectomy specimens should be sent for histopathology regardless of the preoperative histopathology of the endometrium.

Keywords: Histopathology, Hysterectomy, Eosin, Bangalore

INTRODUCTION

Hysterectomy is one of the most commonly performed surgeries in the world. In India it accounts for only 6% of major surgeries.¹ Hysterectomy rate varies from place to place depending upon patient and clinician related factors. Uterus, being a vital female reproductive organ is subjected to many different pathological conditions. Only 150 years later, hysterectomy was the most common operation performed in United State, and elsewhere,

accounting for some 75,000 operation in 1975 in United States itself.¹

There has been a remarkable improvement in conservative management of uterine lesions; still hysterectomy remains the most preferred modality of treatment for pelvic pathologies like fibroid, adenomyosis, pelvic inflammatory disease and malignant disorder. With accurate selection of patients the morbidity and mortality of hysterectomy is low. Prevalence of uterine pathology varies from place to

place.² This study of 200 cases of hysterectomies for benign condition of uterus has been taken to correlate the clinical profile with histopathological examination of uterus.

It is in this field of nonmalignant hysterectomy the indications are often over used resulting in many unnecessary operations. Hence this study will bring about the facts and figures about the clinical indication and final histopathological diagnosis and throw some conclusion on justification of hysterectomy.

METHODS

This is the prospective study conducted at the gynecological outpatient department of Vanivilas Hospital and Bowring and Lady Curzon Hospital, Bangalore, India from July 2012 to December 2014. Of 200 cases of hysterectomy done for benign conditions of uterus were selected randomly. All hysterectomies performed for malignant indication were excluded. The cases were collected from among those attending the Women who were tentatively going to undergo hysterectomy in the future were chosen irrespective of their age, parity or clinical presentation. A detail history of their complaints and a thorough physical and gynecological examination was done on them, as per the proforma. A provisional diagnosis was made. Routine laboratory examination were done like Hb% BT, CT, TC, DC, ESR, blood group and RH typing. Following hysterectomy these patients were followed up in the immediate post-operative period and till six weeks after hysterectomy. Post operatively all the patients were put on continuous catheterization for 48 hours, intravenous fluid for 24-48 hours. Pulse, temperature and BP were recorded similarly as in the cases that underwent abdominal hysterectomy. Regarding antibiotic therapy 40 patients were put on. IV metrogyl and ciprofloxacin and remaining 34 patients on IV metrogyl and cefotaxime with 34 patients started with 2 grams of metronidazole 12 hours pre-operatively. The specimen was sent for histopathology examination to the pathology department of Vanivilas Hospital and Bowring and Lady Curzon Hospital, Bangalore, India. All the collected data was tabulated and stastically analyzed by using SPSS software.

RESULTS

200 men who had undergone hysterectomy for benign conditions of the uterus were studied at Vanivilas Hospital and Bowring and Lady Curzon Hospital Bangalore, India between July 2012 to December 2014. Leiomyoma was reported in 31% of specimen. Adenomyosis was reported in 20% of present cases. Chronic cervicitis was observed in 51% of cases in present study. Endometritis was observed in 3% of cases in present study. Tubercular endometritis was observed in 0.5% of cases. Endometrial polyp was observed in 1% of case in this study. 10% of the specimen was

unremarkable and no pathology could be found. All these cases in our series belonged to dysfunctional uterine bleeding.

DISCUSSION

200 men who had undergone hysterectomy for benign conditions of the uterus were studied at Vanivilas Hospital and Bowring and Lady Curzon Hospital Bangalore, India between July 2012 to December 2014. Women in the study group were between 20-70 years. 50% belonged to 41-50 years of age. Hysterectomy was predominantly performed in para two and para three cases. Commonest presenting symptom was abnormal menstrual flow (62%). Commonest indication for hysterectomy was DUB (30%), fibroid (23%) and prolapse (20%). Abdominal hysterectomy (63%) was performed more commonly than vaginal hysterectomy (37%). Complications are more common in abdominal hysterectomy than vaginal hysterectomy. Febrile morbidity, hemorrhage, wound infection and urinary tract infection were commonly encountered complications after hysterectomy.

Table 1: Uterine pathology.

Histopathology	No. of patients (200 cases)	Percentage
Leiomyoma	62	31%
Adenomyosis	40	20%
Endometrial hyperplasia	32	16%
Endometritis	6	3%
Adenomatous hyperplasia	2	1%
Endometrial polyp	2	1%
TB endometritis	1	0.5%
Atrophic endometritis	8	4%
Nonspecific endometritis	2	1%
Cysto glandular hyperplasia	12	6%
Unremarkable	20	10%

Table 2: Cervical pathology.

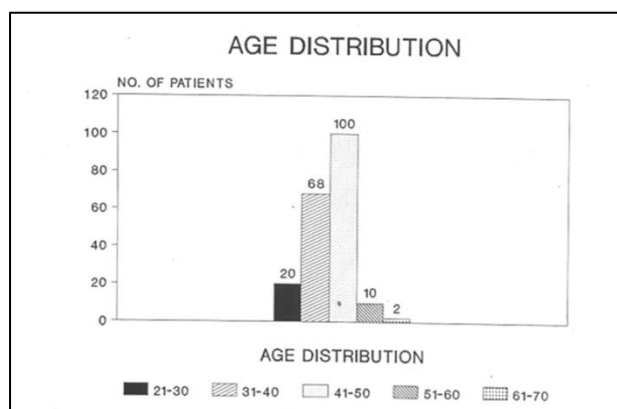
Histopathology	No. of Cases out 194 cases	Percentage
Chronic cervicitis	100	51.5%
Polypoidal endocervicitis	8	3.9%
Koilocytic hyperplasia	6	3.09%
Keratinization	5	4.12%
Acanthosis	4	2.1%
Cornification	2	1.1%
Cervicitis with proclidentia changes	6	3.09%
Para keratosis	2	11%

Table 3: Ovarian pathology.

Histopathology	No. of case (72 case)	Percentage
Follicular cyst	10	13.8
Leuteal cyst	6	8.3
Corpus leuteal cyst (hemorrhagic)	6	8.3
Serous cyst.	4	5.5

Table 4: Tubal pathology.

Histopathology	No. of tubes (102 tubes)	Percentage
Hydrosalpinx	6	5.5%
Chronic salpingitis	8	6.9%
Hematosalpinx	2	13%

**Figure 1: Age distribution of patients.**

Not much of the tubal pathology was observed in 102 tubal operations as they are removed routinely when there is ovarian pathology. Most of the patients underwent premenstrual D and C cervical biopsy. Most of these specimens showed the same features as final histopathological findings of the specimen. On reviewing the histopathological findings following observations were made. Leiomyoma was reported in 31% of specimen. Sutherland et al reported it as high as 83%.³ No other report gives such high results. Cava et al reported it in 20% of cases, Nayak et al reported it in 28.9% of cases, Sagar et al reported it in 35.8%.^{4,5} So the figures vary widely. Adenomyosis was reported in 20% of present cases. Cava et al observed it in 20% of cases, Pendseva et al in 10.9%, Kasturilal et al in 15%.⁶⁻⁸

Chronic cervicitis was observed in 51% of cases in present study. Whereas Nayak et al observed in 6.2%.⁴ Endometrial hyperplasia was observed in 16% of cases. Borr et al reported 27.1% and 33.5% of cases respectively.^{9,10} Endometritis was observed in 3% of cases in present study. Borr et al in 1995 reported in 2.02%, Sagar et al 2.6%, which very well correlates with the present study.^{9,5}

Tubercular endometritis was observed in 0.5% of cases. Reddy et al quoted 1.7% and Borr et al reported it as 0.2%.^{11,9} Endometrial polyp was observed in 1% of case in this study. Borr et al (0.6%) Thakar et al (0.96%) very well correlates with the present study of 1%.^{9,12} 10% of the specimens were unremarkable and no pathology could be found. All these cases in our series belonged to dysfunctional uterine bleeding. Cava et al in his series had observed that 15% of hysterectomy specimen showed no pathology.¹³ Sagar et al reported 24% of specimen showed no pathology.⁵

CONCLUSION

200 women who had undergone hysterectomy for benign conditions of uterus were studied. Abnormal menstrual flow was the commonest presenting complaint. Leiomyoma, adenomyosis and endometrial hyperplasia were commonly found in the histopathological examination of specimen. Among cervical pathology chronic cervicitis and polypoidal endocervicitis were common. No mortality was found in this study. All hysterectomy specimens should be sent for histopathology regardless of the preoperative histopathology of the endometrium.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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