

Evaluation of Histopathological Lesions in Hysterectomy Specimens at a Tertiary Care Center

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Abstract

Aims and Objectives: Hysterectomy is one of the common surgical procedures throughout the world. The objective of the study was to analyze and study the frequency of histopathological lesions in hysterectomy specimens.

Materials and methods: This retrospective study was performed in pathology department at tertiary care centre from January 2015 to December 2015. Total 305 hysterectomy specimens were analyzed for histopathological lesions. Obstetrical hysterectomy specimens were excluded from the study.

Results: A total 306 hysterectomy specimens were reported during the period of one year. Of these 288 hysterectomy were performed abdominally (94.4%) and 17 vaginally (5.6%) for prolapse. Most common lesion was chronic cervicitis in 101 cases (33%) followed by leiomyomas in 91 specimens (30.3%). Other histological lesions were adenomyosis in 11 specimens (11.4%) simple glandular hyperplasia (8.8%), complex hyperplasia and inflammatory lesions of endometrium and fallopian tube.

Conclusion: All hysterectomy specimens should be sent for histopathology. Hysterectomy proved curative and acceptable form of therapy for most of the patients.

Keywords: Hysterectomy specimens, Histopathological lesions.

1. Introduction

The most common major surgical procedure performed in gynecology department is hysterectomy [1]. Many medical and conservative surgical treatment options are available but still hysterectomy remains the most common gynecological procedure performed worldwide [2].

Hysterectomy is usually performed by abdominal, vaginal and laparoscopic routes. Removal of the uterus renders the patient unable to bear children and has surgical risks as well as long term effects. So the surgery is normally recommended when other treatment options are not available or have failed or the patient had completed her family [3].

Few of the common reasons for hysterectomy are dysfunctional or abnormal uterine bleeding (DUB/AUB), painful uterine fibroids, uterine prolapse, endometriosis and adenomyosis. The surgical removal provides a definitive cure [4]. Nowadays hysterectomy is demanded by the

patient in order to improve the patient's quality of life, but the surgery has its own morbidity and mortality. [6]

Hysterectomy has been identified as a key health care indicator in recent reports to measure and compare hospital performance [5].

The study was conducted to analyze the frequency of histopathological lesions of hysterectomy specimens at a tertiary care centre.

2. Methodology

This retrospective study was conducted at the department of pathology of tertiary care centre. Reported records of hysterectomy at the pathology department were considered for period of one year from 1st Jan to 31st Jan 2015. Information was gathered regarding age, complaints, type of hysterectomy and histopathological diagnosis. Obstetrical hysterectomy specimens were excluded. Data was analyzed percentagewise.

3. Results

The majority of patients were in the range of 41-50years (41.5%), although the age ranges from 25-70 years was observed in the study.

A total 306 hysterectomies were performed during the period of one year. Hysterectomy was performed abdominal in 288 cases (94.1%) and vaginal in 18 patients (5.8%). [Most of the hysterectomies were abdominal rather than vaginal because fewer patients presented with uterovaginal prolapse. (5.8%)

In 276 hysterectomy specimen presenting complaint was reported as abnormal uterine bleeding. (90.19%), 18 were specimen of uterovaginal prolapse had complaint of something coming out and 12 were of pelvic mass.

Out of 306 hysterectomy specimen 181 were uterus and cervix (total hysterectomy)(59.1%) and 125 specimen were uterus, cervix with unilateral or bilateral salphingo-oophorectomy (TH+USO/BSO)(39.2%) and along with ovarian masses in 12 specimen (4.2%).Single pathology was reported in 291(95.4%) specimens and dual pathology in 14 specimens (4.5%). Chronic nonspecific cervicitis was found in 101 specimens out of 306 hysterectomy specimens (33%). In 93 specimens leiomyoma was observed (30.3%) of which one each of lipoleiomyoma and symplasmic leiomyoma were reported respectively. 20specimens were of multiple leiomyoma in 2 specimens of submucosal leiomyomatous polyp and one of subserosal leiomyoma.

Histological adenomyosis was reported in 35 cases (11.4%). Simple glandular hyperplasia of endometrium was found in 27 cases (8.8%) and 2 cases of complex glandular hyperplasia of endometrium (0.6%). Endometrial polyp was reported in 5 specimens and endocervical polyp in 8 specimens. Infective etiology was found in 15 specimen including diagnosis of chronic endometritis, salphingitis and a tubo-ovarian masses (4.9%).

12 Specimen of ovarian mass were diagnosed as 5mucinous cystadenoma, 2 of serous cystadenoma, one of borderline serous cystadenoma, one serous cystadenocarcinoma, one of fibroma of ovary, one of granulosa tumour of ovary and one germ cell tumour Of the 306 specimen we found 4 cases of squamous cell carcinoma of cervix and one case of adenosquamous carcinoma of cervix; (1.6%) one specimen of endometrial stromal sarcoma.

Table I: Age Wise Distribution of Hysterectomy Specimen

Age range	number of hysterectomy	Percentage
21-30	13	4.25
31-40	104	33.99
41-50	128	41.83
51-60	45	14.70
61-70	16	5.23

Table II: Type of Hysterectomy

Type of hysterectomy	Number of cases	Percentage
Abdominal	288	94.4
Vaginal	18	5.5
Total	306	100

Table III: Histopatological lesions of hysterectomy Specimens

Type of Lesions	No. of cases
Non-specific chronic cervicitis	101
Leiomyoma	91
Adenomyosis	35
Simple glandular hyperplasia	27
Prolapse	18
Ovarian masses	12
Chronic endometritis	10
Endometrial polyp & endocervical polyp	13
Malignancy(endometrial,cervical)	06

4. Discussion

Hysterectomy is the most commonly performed major gynaecological surgery worldwide and prevalence of it varies from country to country, region to region [7]. Since 1901 onwards hysterectomy has become the definitive treatment for pelvic pathology including fibroids, abnormal uterine bleeding, chronic pelvic pain, endometriosis, adenomyosis, uterovaginal prolapse, pelvic inflammatory diseases and cancer of reproductive organ [4].

In our study out of 306 hysterectomies majority were performed in the age range of 41-50 years followed by 31-40 years and least during 60-70.the most common age range was 40-49 years. (Table I) This is similar to study conducted by Sreedhar et.al [4] and Jindal et .al [8].

The commonest clinical complaint was abnormal uterine bleeding (AUB) in 90.12% patients, which correlated with the findings of Sreedhar *et al*[4] and Arzoo Amin *et al* [9]. In their study most of the patients presented with complaints of menorrhagia and abnormal uterine bleeding. AUB is irregular uterine bleeding that can occur in the absence of recognizable pelvic pathology, general medical diseases or pregnancy sometimes. It reflects a disruption in the normal cyclic pattern of ovulation due to hormonal imbalance.

Our study was similar to that of Sreedhar *et al* regarding the type of hysterectomy. Abdominal hysterectomy was performed in 94.5% cases while vaginal in 5.5% in our study. It was nearly similar to Sreedhar *et al* (85.33% abdominal and 14.67% vaginal hysterectomy). [4] While observation in the study of Jindal *et al* [8] vaginal hysterectomy was the commonest route. 60-80% hysterectomies are abdominal although abdominal route is more frequently associated with prolonged hospital stay, high patient cost and more complication to vaginal route. Vaginal hysterectomy is preferred in cases of uterovaginal prolapse, it carries less risk and complications and is

encouraged if the disease is confined to uterus and uterine weight is less than 280 grams.

Of the 306 hysterectomy specimens 180 specimens were of total hysterectomy (TH 58.82%) and 126 specimens of total hysterectomy with unilateral or bilateral salphingo-oophorectomy (41.17%). It is very important to preserve ovaries in younger patients and reduce the morbidity. Many a times it is at the discretion of the operating surgeon to remove the addenda or not as the patient is hardly aware of the advantages and disadvantages of oophorectomy.

The most common histological lesion was chronic non specific cervicitis (33%) This is similar to study done by Qamar *et al* [10], Zaid *et al* (53.6%) [11] and Jindal *et al* (83.1%) [8]. Though this infection is not specific but it is an associated finding, in the absence of any grossly visible lesion in the uterus removed for AUB, chronic cervicitis remains the commonest lesion in hysterectomy specimens. However presence or absence of infection in the cervical canal could hardly lead to the decision of hysterectomy.

The second commonest histopathological lesion was leiomyoma of the uterus in our study (30.3%). It is similar to study done by Qamar –un- Nisa Bukhari [9] and Monika Jindal [8]., Arzoo Amin *et al*[9], Shreedhar *et al*[4] 20..5%,29.3%,32.5% respectively.

The diagnosis of adenomyosis is third in frequency of histopathological lesion in our study (11.4%) which is less than Jindal *et al* (20.7%)[8] and greater than Sreedhar *et al*[4](12%). Our study reported 12 ovarian masses (3.9%) whereas it was 14 ovarian masses (1.8%) and 12 % in study of Sreedhar *et al*. [4]

The cervical carcinoma was reported in 5 hysterectomy specimens (1.6%) in our observation while 50 cases in study of Jindal *et al* (6.5%) [8] and 6 cases in study of Sreedhar *et al* [8] (3%).

In our study we found 10 cases of chronic endometritis (3.27%) were nearer to reported cases of Sreedhar *et al* 12 cases. We also had histopathological lesions reported as endometrial and endocervical polyp 13 cases.

5. Conclusion

Hysterectomy is a very commonly performed surgery. Though AUB with underlying pathology is most important indication for hysterectomy, the ultimate diagnosis rests on histopathological examination,

Histopathological analysis correlates well with the pre-operative clinical diagnosis for hysterectomy. All hysterectomy specimens should be sent for histopathological examination regardless of operative microscopic assessment so that evaluation will be proper. Though most of the pathologies are benign; malignancies are also detected on hysterectomy specimens, but very

rarely. Hysterectomy still remains the widely used treatment modality in developed and developing countries.

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