

# Analysis of Hysterectomy Specimens- A histopathological Study

Neetu Punia<sup>1</sup>, Shivani Dua<sup>2</sup>

<sup>1</sup>Assistant Professor, Department of Obstetrics & Gynaecology, NC Medical College, <sup>2</sup>Assistant Professor, Department of Pathology, N C Medical College Israna

## Abstract

**Background:** Hysterectomy means removal of uterus. The present study was conducted to assess histopathology of hysterectomy specimens. **Subjects and Methods:** The present study was conducted on 104 hysterectomy specimens. The hysterectomy specimens received were immediately transferred into 10% fresh formalin. The histopathological findings of uterus and cervix were then recorded. **Results:** Clinical indications were ovarian cyst in 2, dermoid cyst in 11, fibroid uterus in 25, menorrhagia in 34, chronic cervicitis in 6, carcinoma cervix in 10, carcinoma endometrium in 7, and uterine polyp in 9. The difference was significant ( $P < 0.05$ ). Histopathology was normal in 24, adenocarcinoma in 16, leiomyoma in 12, adenomyosis in 16, chronic cervicitis in 20, SCC in 17, endocervical polyp in 7. The difference was significant ( $P < 0.05$ ). **Conclusion:** Hysterectomy is a common procedure among females. Histopathology of hysterectomy found to be adenocarcinoma, endocervical polyp leiomyoma, adenomyosis, chronic cervicitis, SCC, and normal histology.

**Keywords:** Cervix, hysterectomy, Uterus.

**Corresponding Author:** Dr Shivani Dua, Assistant Professor, Department of Pathology, N C Medical College Israna.

**Received:** November 2019

**Accepted:** November 2019

## Introduction

Hysterectomy means removal of uterus. Since early twentieth century it is considered definite treatment of various pelvic pathologies like leiomyoma, dysfunctional uterine bleeding (DUB), chronic pelvic pain, endometriosis, adenomyosis, prolapse, and malignancies.<sup>[1]</sup> In fact it is the second most frequently performed major surgical procedure in females all over the world next to cesarean section.<sup>[2]</sup>

Many treatment are available nowadays including medical and conservative surgical procedures but hysterectomy remains the most preferred method to manage gynaecological disorders.<sup>[2]</sup> Hysterectomy is a surgery which has been used and misused, underused, and abused at different times in gynecology.<sup>[3]</sup>

The clinical indications to perform this major surgery should always be justified as it has its own psychological, emotional, medical, hormonal and sexual effects on a females life. Hysterectomy is the most commonly performed major gynaecological surgery throughout the world.<sup>[4]</sup> It is a successful operation in terms of symptom relief and patient satisfaction and provides definitive cure to many diseases involving uterus as well as adnexae. Histopathological examination of hysterectomy specimens carries both diagnostic and therapeutic significance. It is associated with risk of iatrogenic premature menopause, surgical and anesthetic complications like fistula involving ureter, bladder and gut and also chronic abdominal pain.<sup>[5]</sup> The present study was conducted to assess histopathology of hysterectomy specimens.

## Subjects and Methods

The present study was conducted in the department of general pathology. It comprised of 104 hysterectomy specimens. The study protocol was approved from institutional ethical committee before commencement of study.

The hysterectomy specimens received were immediately transferred into 10% fresh formalin. After 24 hours fixation, the specimen was examined grossly and necessary sections were obtained from uterus. The histopathological findings of uterus and cervix were then noted. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

## Results

**Table 1: Age distribution of specimens**

Age group (Years)	Number	P value
21-30	8	0.01
31-40	10	
41-50	45	
51-60	25	
61-70	10	
>70	6	

[Table 1 & Figure 1] shows that age group 21-30 years had 8, 31-40 years had 10, 41-50 years had 45, 51-60 years had 25, 61-70 years had 10 and >70 had 6 specimens. The difference was significant ( $P < 0.05$ ).

[Table 2 & Figure 2] shows that clinical indications were ovarian cyst in 2, dermoid cyst in 11, fibroid uterus in 25, menorrhagia in 34, chronic cervicitis in 6, carcinoma cervix

in 10, carcinoma endometrium in 7, and uterine polyp in 9. The difference was significant (P<0.05).

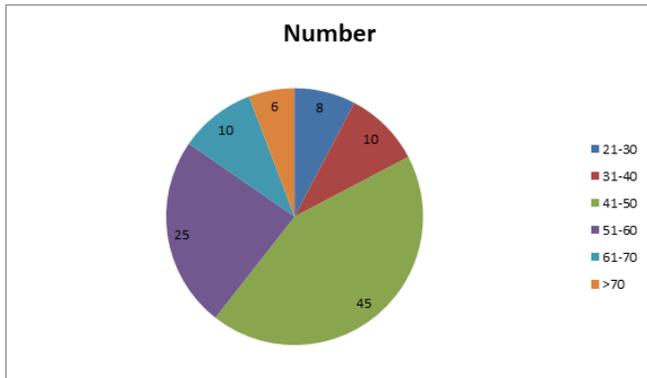


Figure 1: Age distribution of specimens

Table 2: Indications of Hysterectomy

Indication	Number	P value
Ovarian cyst	2	0.01
Dermoid cyst	11	
Fibroid uterus	25	
Menorrhagia	34	
Chronic cervicitis	6	
Carcinoma cervix	10	
Carcinoma endometrium	7	
Uterine polyp	9	

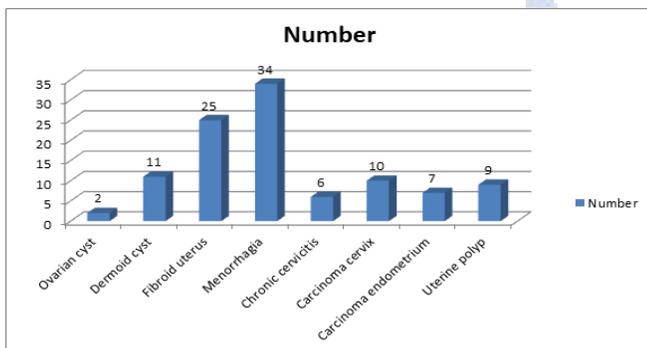


Figure 2: Clinical Indications of Hysterectomy

Table 3: Histopathological diagnosis of specimens

Indication	Number	P value
Normal histology	24	0.01
Adenomyosis	16	
Leiomyoma	12	
Chronic cervicitis	20	
SCC	17	
Adenocarcinoma	8	
Endocervical polyp	7	

[Table 3] shows that histopathology was normal in 24, adenocarcinoma in 16, leiomyoma in 12, adenomyosis in 16, chronic cervicitis in 20, SCC in 17, endocervical polyp in 7. The difference was significant (P<0.05).

## Discussion

Hysterectomy is the most commonly performed surgery in gynaecological practice as it provides definitive cure and

accurate diagnosis. Although hysterectomy is usually done to improve patient's quality of life yet it has its own morbidity and mortality. Most of the indications are debatable and therefore regular audit of this should be done.<sup>[6]</sup> The present study was conducted to evaluate histopathology of hysterectomy specimens.

In this study, age group 21-30 years had 8, 31-40 years had 10, 41-50 years had 45, 51-60 years had 25, 61-70 years had 10 and >70 had 6 specimens. Tiwana et al,<sup>[7]</sup> found that the age of patients ranged from 22 to 85 years with mean 45 ± 9.2 years. All cases were divided into five categories on the basis of age and audit was done. In this study the most common finding was leiomyoma (43.7%) followed by adenomyosis (19.3%). Almost 50% of hysterectomies causes were justified as preoperative diagnosis matched with histopathology. Cohen kappa statistics were used to measure agreement between preoperative and postoperative histopathological diagnosis which was found to be fair with κ value being 0.36.

We found that clinical indications were ovarian cyst in 2, dermoid cyst in 11, fibroid uterus in 25, menorrhagia in 34, chronic cervicitis in 6, carcinoma cervix in 10, carcinoma endometrium in 7, and uterine polyp in 9. Shakira et al,<sup>[8]</sup> conducted a study to study the histopathological features of varied uterine lesions, their profile and distribution of different lesions in relation of age. A total of 3576 histopathology samples were received in this period. There were 1173 gynaecology samples during this period out of which 22% (261 cases) were that of hysterectomy. Histopathology diagnosis showed Leiomyoma in 48.6% (127 cases), Adenomyosis was seen in 10.3% (27 cases) and Endometrioid Adenocarcinoma was seen in 1.14% (3 cases).

We observed that histopathology was normal in 24, adenocarcinoma in 16, leiomyoma in 12, adenomyosis in 16, chronic cervicitis in 20, SCC in 17 and endocervical polyp in 7. Most common complaints presented are per vaginal bleeding, vaginal discharge, pain abdomen, irregular menstruation, postmenopausal bleeding, mass per abdomen, something coming out of vagina etc. Many treatment options are available including medical and conservative surgical treatments but hysterectomy remains one of the most preferred method to manage gynecological disorders. It should be performed when the risk of preserving the uterus is greater than it's removal or when the disabling symptoms for which there is no successful medical treatment.<sup>[9]</sup>

Amin et al,<sup>[10]</sup> in their study a total of 123 hysterectomies were performed. Hysterectomy was performed abdominally in 88 (71.5%) patients, vaginally in 35 patients (28.4%). The most common indication for hysterectomy was fibroid related menorrhagia n=40 (32.5%), followed by third degree uterovaginal prolapse n=30 (24.4%), and dysfunctional uterine bleeding 29(23.6%) patients. Fever was the most common 7(5.7%) post operative complication followed by urinary tract infection 5(4.9%) The incidence of postoperative fever was greater following abdominal surgery, while urinary tract infection was greater following vaginal hysterectomy (P=0.370).

## Conclusion

Hysterectomy is a common procedure among females. Histopathology of hysterectomy found to be adenocarcinoma, endocervical polyp leiomyoma, adenomyosis, chronic cervicitis, SCC, and normal histology.

## References

1. Dicker RC, Seally MJ, Greenspan JR. Hysterectomy among women of reproductive age trends in United States. JAMA. 1990;248:328-35.
2. Ajmera SK, Mettler L, Jonat W. Operative spectrum of hysterectomy in a German University hospital, a retrospective analysis. J Obstet Gynaecol India. 2006;56(1):59-63.
3. Watts WF, Kimbrough RA. Hysterectomy Analysis of 1000 consecutive operations. Obstet Gynecol. 1956;7(5):483-93.
4. Sarfraz T, Tariq H. Histopathological findings in menorrhagia: A study of 100 hysterectomy specimens. Pak J Pathol. 2005;16(3):83-5.
5. Domblae V, Gundalli S. Histopathological analysis of uterine lesions in hysterectomy specimens. Int J Sci Res. ISSN(Online):2319-7064.
6. Archana B, Michelle F. Evaluation and histopathological correlation of abnormal uterine bleeding in perimenopausal women. Bombay Hospital J. 2010;52(1):69-72.
7. Tiwana KK, Nibhoria S, Monga T, Phutela R. Histopathological audit of 373 nononcological hysterectomies in a teaching hospital. Pathology research international. 2014;2014.
8. Shakira P, Subhana T. A clinicopathological review of elective abdominal hysterectomy. J Surg Pakistan. 2008;13(1):26-9.
9. Sobande AA, Eskander M, Archibong EI, Damole IO. Elective hysterectomy: A clinicopathological review from Abha catchment area of Saudi Arabia. WAJM. 2005;24(1):31-5.
10. Amin A, Ali A, Amin Z, Sani FN. Justification for hysterectomies and frequency of histopathological lesions of hysterectomy at a Teaching Hospital in Peshawar, Pakistan. Pakistan journal of medical sciences. 2013 Jan;29(1):170.

**Copyright:** © the author(s), 2019. It is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits authors to retain ownership of the copyright for their content, and allow anyone to download, reuse, reprint, modify, distribute and/or copy the content as long as the original authors and source are cited.

**How to cite this article:** Punia N, Dua S. Analysis of Hysterectomy Specimens- A histopathological Study. Asian J. Med. Res. 2019;8(4):MC01-MC03.

DOI: [dx.doi.org/10.21276/ajmr.2019.8.4.MC1](https://doi.org/10.21276/ajmr.2019.8.4.MC1)

**Source of Support:** Nil, **Conflict of Interest:** None declared.

