

# Histopathological span of diseases in patients going through hysterectomies: an audit of 190 consecutive hysterectomy specimens in Multan

ZERTAJ KASHIF<sup>1</sup>, SONIA ZAFAR WARRIACH<sup>2</sup>, SEHAR SHAMSHAD ALI<sup>3</sup>, MUHAMMAD BILAL PASHA<sup>4</sup>, KANWAR SAJID ALI<sup>5</sup>, AYESHA KASHIF<sup>6</sup>, AAMIR ALI KHAN<sup>7</sup>

<sup>1</sup>Associate Professor Pathology, Bakhtawar Amin Medical & Dental College, Multan

<sup>2</sup>FCPS Obstetrics and Gynaecology, DHQ Jhang

<sup>3</sup>Senior Demonstrator, Bakhtawar Amin Medical & Dental College, Multan

<sup>4</sup>Assistant Professor Pathology, Bakhtawar Amin Medical & Dental College, Multan

<sup>5</sup>Associate Professor, Bakhtawar Amin Medical & Dental College, Multan

<sup>6</sup>4<sup>th</sup> Year Trainee FCPS (II), Community Medicine, Nishter Medical University Multan

<sup>7</sup>Professor of Pathology, Bakhtawar Amin Medical & Dental College, Multan

Correspondence to: Dr. Zertaj Kashif, Email: [zkashif786@icloud.com](mailto:zkashif786@icloud.com), Cell: 03146121201

## ABSTRACT

**Introduction:** Gynecological diseases affect women's lives in numerous manners. They are frequent in all communities but the types of disorders and their presentations differ substantially in various regions and races. However, the studies and researches specifying these disorders in particular regions and communities are very low in number.

Hysterectomy is one of the most frequently opted operations worldwide particularly in developing countries and hardly any studies are done about its epidemiology and prevalence in Multan region of Pakistan.

**Objective:** The objective of this study is to assess the variety of histopathological diseases in patients undergoing hysterectomies in Multan region

**Design:** Retrospective study including 190 hysterectomy specimens.

**Place and duration:** Department of Histopathology Bakhtawar Amin Medical & Dental College, Multan from January 2019 to December 2020.

**Methodology:** Histopathology reports of all hysterectomy specimens removed due to gynecological disorders were included. All the relevant data like age, parity, clinical manifestations, indication and type of hysterectomy were recorded along with histopathological microscopic diagnosis of cervix, endometrium, myometrium, fallopian tubes and ovaries. The data was collected from medical track record, histopathological request form and histopathology report files.

**Results:** A total of 190 hysterectomies were received in histopathology department. The mean age was 47.8 years (ranging from 25-75 years). Majority of the ladies were between age groups 41-50 years. The major presenting complaint was menstrual irregularity followed by abdominal pain. Out of 190 specimen, 170 (89.5%) of hysterectomies were done because of non neoplastic/ benign conditions. Chronic cervicitis, adenomyosis and leiomyomata were the most commonly noticed incidental findings.

**Conclusion:** Hysterectomy is an extensively used therapeutic modality, largely for benign non neoplastic disorders to relieve the clinical symptoms and to enhance the living conditions. Presence of incidental diseases in majority of hysterectomy specimens indicates that for conclusive opinion, histopathological examination is must.

**Key words:** Histopathology, hysterectomy, benign gynecological disorders, leiomyoma, adenomyosis

## INTRODUCTION

Gynecological disorders are one of the common problems encountered in clinical practice where large number of women visit clinical practitioners to seek help; and a major bulk of these disorders are benign in nature.<sup>1,26</sup>

These disorders are largely ignored in many low resources settings all over the world especially in Pakistan. Insufficient knowledge and understanding of the health issues and lack of medical services often lead to late diagnosis, resulting in greater morbidity, more chances of uterine removal and increase in mortality as well.<sup>3</sup>

Hysterectomy is an operation to remove the uterus. All around the world this surgery is performed in large numbers.<sup>4</sup>

Abdominal hysterectomy is the routinely opted surgical technique for benign disorders in Pakistan.<sup>5</sup>

The chance of hysterectomy in the course of women's life ranges from 30-40% as it is the ultimate solution for numerous benign and malignant gynecological disorders.<sup>6</sup>

The gynecological problems are universal in occurrence but there is hardly any absolute data and statistics available regarding prevalence and occurrence of various gynecological diseases in Pakistan except few studies conducted in certain large cities. According to a study conducted in Karachi, out of 100, 41 women faced gynecological problems.<sup>7</sup>

The most common gynecological disorders encountered in women of Pakistan are however, ovarian cysts, irregular periods, fibroid uterus, polycystic ovarian disease, infections and cervical cancer.<sup>8</sup>

The objective of this study was to ascertain the spectrum of histopathological diagnoses encountered in women undergoing hysterectomy procedures.

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**MATERIAL AND METHODS**

This descriptive study was conducted at Bakhtawar Amin Hospital, Multan over a period of 3 years from January 2018 to December 2020. Histopathology reports of all hysterectomy specimen were included. Obstetrical hysterectomies were excluded in this study. Data like age, parity, presenting complaints and indication for hysterectomy and type of hysterectomy were recorded. Percentage and proportions were calculated for all the variables. Relevant tables and charts were computed.

**RESULTS**

During the last two years, a total of 190 hysterectomies were received in the histopathology laboratory. The mean age was 47.8 years (ranging from 25-75 years). Majority of the patients were between age group 41-50 years.

The major presenting complaint was menstrual irregularity followed by pain abdomen.

Table 1: Types of Hysterectomies

Type of Hysterectomy	Number of cases (n=190)	Percentage (%)
Vaginal Hysterectomies	12	6.3
TAH without fallopian tubes & ovaries	104	54.7
TAH with bilateral salpingo-oophorectomy (BSO)	52	27.4
TAH with unilateral salpingo-oophorectomy (USO)	14	7.4
Subtotal (only uterus)	8	4.2
Total	190	100

Table 2: Main Presenting Complaint

Major mode of presentation	Frequency (n=254)	Percentage (%)
Abdominopelvic pain	62	24.4
Bleeding per vaginum/menstrual disturbances	159	62.6
Cervical discharge	21	8.3
Uterovaginal prolapse	12	4.7

Table 3: Distribution of cases according to Age

Age Group (Years)	Number of cases	Percentage (%)
20-30	12	6.3
31-40	48	25.3
41-50	78	41.1
51-60	40	21.1
61-70	6	3.1
>70	6	3.1

Table 4: Distribution of cases according to Parity

Parity	Number of cases	Percentage (%)
Nulliparous	02	1.1
1	06	3.1
2	14	7.4
3	67	35.3
4 and more	101	53.1

Out of 190 hysterectomy specimen, 170 (89.5 %) were non neoplastic (benign), and 20 (10.5 %) were malignant. Among 170 benign lesions, the commonest histopathological finding encountered was chronic cervicitis (176 cases). It was an incidental finding in nearly all cases.

Other less common benign lesions were leiomyomata and adenomyosis.

Out of 190 hysterectomies, 20 (10.5 %) patients had gynecological malignancies and squamous cell carcinoma of the cervix appeared to be the most frequently detected malignancy noticed in (8/20) 40 % of all malignant lesions.

Table 5: Histopathological diagnosis of Cervical Lesions

Histopathological diagnosis	Number of cases (n=259)	Percentage (%)
Acute Cervicitis	02	0.8
Chronic Cervicitis	159	61.4
Papillary Cervicitis	42	16.2
Squamous metaplasia	34	13.1
Microglandular hyperplasia	02	0.8
Cervical Polyp	01	0.4
Cervical Leiomyoma	03	1.1
Cervical squamous cell carcinoma	08	3.1
Cervical adenocarcinoma	04	1.5
Adenocarcinoma in situ	01	0.4
Cervical intraepithelial neoplasia (CIN I)	01	0.4
Cervical intraepithelial neoplasia (CIN III)	02	0.8

Table 6: Histopathological diagnosis of Endometrial Lesions

Histopathological Diagnosis	Number of cases (n=205)	Percentage
PHASE OF ENDOMETRIUM		
Proliferative endometrium	95	46.3
Secretory endometrium	06	2.9
Atrophic endometrium	12	5.9
Disordered endometrium	39	19.0
ENDOMETRIAL HYPERPLASIA		
Simple hyperplasia without atypia	24	11.7
Complex hyperplasia	02	1.0
Pseudodecidual reaction in the stroma	10	4.9
Endometritis	05	2.4
Benign endometrial polyp	07	3.4
Endometrial Carcinoma	02	1.0
Malignant mixed mullerian tumor	03	1.5

Table 7: Histopathological diagnosis of Myometrial Lesions

Histopathological Diagnosis	Number of cases (n=212)	Percentage (%)
Leiomyoma	71	33.5
Adenomyosis	82	38.7
Normal Histology	59	27.8

Table 8: Histopathological diagnosis of Fallopian tube Lesions

Histopathological Diagnosis	Number of cases (n=118)	Percentage (%)
Normal	109	92.4
Endometriosis	06	5.1
Paratubal cysts	03	2.5

Table 8: Histopathological diagnosis of Ovarian Lesions

Histopathological Diagnosis	Number of cases (n=119)	Percentage (%)
No significant pathology	103	86.6
Follicular cyst	05	4.2
Corpus luteal cyst	02	1.7
Endometriosis	06	5.0
Benign Mucinous cystadenoma	01	0.8
Benign serous cystadenoma	02	1.7

Table 9: Distribution of all the malignant lesions

Malignant lesion	Number of cases (n=20)	Percentage (%)
<b>CERVIX</b>		
Cervical squamous cell carcinoma	08	40
Cervical adenocarcinoma	04	20
Adenocarcinoma in situ	01	05
Cervical intraepithelial neoplasia (CIN III)	02	10
<b>ENDOMETRIUM</b>		
Endometrial adenocarcinoma	02	10
Malignant mixed mullerian tumor	03	15

## DISCUSSION

Hysterectomy is the most commonly executed significant gynecological operation all over the world. It helps in providing immediate absolute relief in many benign and malignant conditions of uterus, cervix and adnexae. (9)

Today hysterectomy is a routine procedure opted globally, offering the chances of cure to many patients; however the figures of this surgical operation have been declined remarkably in developed countries due to switch towards conservative approaches. Still the numbers are higher than the developing countries. (10)

The mean age of women who underwent hysterectomy due to gynecological disorders in our study was 47.8 years in accordance with several studies conducted in Pakistan and abroad where the mean ages found were 48.8 years 46.86 years, 45.76years, 45 years, 43 years and 40.37years respectively. (2, 11, 12, 13, 14, 15)

Most (78/190) 41.1% of these women were between ages 41 to 50 years, comparable to the studies conducted by Shahid R, Egbe TO and Imam ZS. (15, 13, 16)

Irregular excessive bleeding and pain were the most frequent presenting complaints in our study. Similar mode of presentations was seen in several other studies. (15, 17)

Most women presented with single manifestation; however many others complaint of overlapping symptoms.

The overall occurrence of non neoplastic benign lesions in this study was 170/190 (89.5%) as compared to 20/190 (10.5%) malignant neoplastic lesions. These findings are supported by several local studies (5, 14, and 15) as well as studies from India, China and Michigan. (2, 12, 18)

The commonest non neoplastic benign lesion in this study was chronic cervicitis which is an incidental finding in nearly all cases. This is consistent with several studies in which chronic cervicitis appeared to be the commonest incidental finding in cervix. (9, 16, 19)

However, leiomyomas and adenomyosis were the most frequent myometrial histopathological lesions and indication for hysterectomy in our study, in keeping with several other studies. (11, 20, 21)

The most common type of hysterectomy was TAH without tubes and ovaries in our study. This is in accordance with several other studies where number of total abdominal hysterectomy was much more than vaginal hysterectomies. (5, 22, 23)

Endometriosis was another incidental finding observed in 6% of cases in both fallopian tubes and ovaries; this incidence is quite close to several other studies. (15, 24, 25)

## CONCLUSION

Hysterectomy is an extensively used therapeutic modality. The conclusive opinion is eventually made on histopathological examination. Non neoplastic benign pathologies are much more frequent reasons for hysterectomy than the malignant lesions and majority of these lesions especially chronic cervicitis, adenomyosis and even few leiomyomas are encountered as incidental findings along with endometriosis and few ovarian cysts.

**Limitations:** In this region of the world most ladies don't consult doctors especially for gynecological issues until and unless there is marked health related disturbance; especially single unmarried and young ladies with low parity as it is considered a social taboo; due to such delay even mild non neoplastic benign conditions get worse and hysterectomy remains the last option.

Secondly most people here lack health positive attitudes and don't go for expensive thorough investigations that lead to missed preoperative diagnosis and increased number of incidental findings on histopathology.

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