



CLINICO-PATHOLOGICAL EVALUATION OF HYSTERECTOMIES IN A TERTIARY CARE CENTRE

Obstetrics & Gynaecology

Dr. Swarna Devi Muthavarapu

Postgraduate, Department of Obstetrics and Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences, Eluru, West Godavari District, Andhra Pradesh- 534005, India.

Dr. M. Tripura Sundari

Professor, Department of Obstetrics & Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences, Eluru, West Godavari District, Andhra Pradesh -534005, India.

Dr. K.Vandana*

Professor&HOD, Department of Obstetrics & Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences, Eluru, West Godavari District, Andhra Pradesh 534005, India. *Corresponding Author

ABSTRACT

Background: Hysterectomy is the most common gynaecological surgical procedure after caesarean section. In India, lower rate (4-6%) of hysterectomy has been reported, while there is higher frequency of hysterectomy (10-20%) in developed countries. Currently there are three main types of hysterectomy operations in practice for benign diseases, they are-Abdominal hysterectomy, Vaginal hysterectomy and Laparoscopic hysterectomy. Abdominal hysterectomy remains the predominant method of removal of uterus worldwide whereas in India, most of the surgeons prefer vaginal hysterectomy. **Aims And Objectives:** This study aims to analyse the hysterectomy cases performed in our tertiary care centre over a period of one year based on age, common indications, route of hysterectomy and to analyse the cases of hysterectomy performed in our tertiary care centre with a view to modify and improve health care provided to women. **Materials And Methodology:** In this Prospective Observational study, we included 50 patients who underwent elective hysterectomies over a period of 1 year in Department of Obstetrics and Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences, Eluru. The study did not include emergency hysterectomy and caesarean hysterectomy. **Results:** In this present study, out of 50 cases who have undergone elective hysterectomies, most common clinical and histopathological diagnosis was found to be leiomyoma. It was observed that maximum number of patients undergoing surgery were in the age group – 41-50 i.e., Perimenopausal age. The most common route of surgery was found to be Abdominal hysterectomy with salpingoophorectomy. Vaginal hysterectomy cases which were done for in elderly patients, clinical diagnosis of prolapse were found to have atrophic endometrium. **Conclusion:** The study establishes high incidence of benign conditions of uterus mainly leiomyoma. A strong clinicopathological correlation has been found in the cases. Histopathological diagnosis is essential for the confirmation and for finding out any pathology that has been missed on clinical and ultrasound examination.

KEYWORDS

Hysterectomy, Types Of Hysterectomy, Leiomyoma

INTRODUCTION

- Hysterectomy is the most common gynaecological surgical procedure after caesarean section.
- In India there is lower rate (4-6%) of hysterectomy has been reported, while there is higher frequency of hysterectomy (10-20%) in developed countries.¹
- Currently there are three main types of hysterectomy operations in practice for benign diseases- a) abdominal hysterectomy, b) vaginal hysterectomy and c) laparoscopic hysterectomy.¹

Types Of Hysterectomy :-

1. Vaginal Hysterectomy-

Uterus is removed through an incision at the top of vagina. There isn't an external incision. Dissolvable stitches are placed. Most commonly used in cases of uterine prolapse and other nonmalignant (or noncancerous) conditions. Fewest complications and fastest recovery (up to four weeks) and considered the preferred approach.²

2. Laparoscopic Hysterectomy-

A laparoscope (a thin tube with a video camera on the end) is inserted in lower abdomen through a small incision in belly button. Surgical tools are inserted through several other small incisions. Uterus can be removed in small pieces through the incisions in the abdomen or through vagina. Some people go home the same day or after one night in the hospital. Full recovery is shorter and less painful than an abdominal hysterectomy.²

3. Abdominal Hysterectomy-

Uterus is removed through a six- to eight-inch-long incision on the abdomen. The surgeon will use stitches or staples to close the incision. Most commonly used when cancer is involved, when the uterus is enlarged or when disease spreads to other pelvic areas. It generally requires a longer hospital stay and a longer recovery time.²

- Abdominal hysterectomy remains the predominant method of uterus removal whereas in India, most of the surgeons prefer vaginal hysterectomy.¹
- Vaginal and laparoscopic hysterectomies are associated with fewer complications, shorter hospital stay, more rapid recovery

and lower overall costs³

- Hysterectomy is used commonly to improve the quality of life; however at some times it is a lifesaving procedure. As any surgical procedure is associated with a risk of complications, the indication should be carefully evaluated.
- With the emergence of many conservative approaches to deal with benign gynecological conditions, it is prudent to discuss available options with patient before taking a direct decision of sacrificing her uterus.
- Emergence of effective medical and conservative treatment for benign conditions in the uterus is now posing a question mark regarding the justification of hysterectomy.

AIMS AND OBJECTIVES

- This study aims to analyse the hysterectomy cases performed in our tertiary care centre over a period of one year based on age, common indications, route of hysterectomy.

MATERIALS AND METHODOLOGY

Study Area-

Department Of Obstetrics And Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences, Eluru

Study Design- Observational Study

Sample size-

50 women admitted in our department who have met the inclusion criteria.

Study period – September 2021 to September 2022

Inclusion Criteria

- This study includes patients who underwent elective hysterectomy in hospital.

Exclusion Criteria

- The study did not include emergency hysterectomy and caesarean hysterectomy.

The clinical data was recorded along with the demographic

characteristics. Clinical diagnosis and radiological findings were recorded in the request proformas.

Hysterectomy specimens were preserved in 10% formalin. The gross features were noted and sections made and processed as per guidelines for the grossing. The obtained slides were stained and then analysed, histopathological findings were recorded and diagnosis was made.

The results were observed to see the correlation with the clinical data and diagnosis.

RESULTS:

Table 1: Age-distribution

S.no.	Age-group (yrs)	No. of patients (n=50)	Percentage (%)
1	31-40	14	28
2	41-50	22	44
3	51-60	12	24
4	>60	2	4

Hysterectomies were performed over a wide range of age. Maximum patients who underwent hysterectomy were in the age-group of 41-50 years (44%). Thus, patients in perimenopausal age most commonly complained of abnormal uterine bleeding, pelvic pain or abdominal/pelvic mass for which they were surgically operated.

Table 2: Type Of Procedure

S.no.	Procedure	No. of patients (n=50)	Percentage (%)
1	Total abdominal hysterectomy	12	24
2	Total abdominal hysterectomy and salpingoophorectomy	20	40
3	Vaginal hysterectomy with pelvic floor repair	10	20
4	Laparoscopic hysterectomy	8	16

The most commonly performed procedure was Total abdominal hysterectomy with bilateral or unilateral salpingoophorectomy as in 40% cases.

Table 3: Clinical Diagnosis

S.no.	Clinical diagnosis	No. Of patients (n=50)	Percentage (%)
1	Fibroid	20	40
2	Abnormal Uterine Bleeding	6	12
3	Adenomyosis	3	6
4	Prolapse	10	20
5	Ovarian Tumor	3	6
6	Endometrial Polyp	3	6
7	Carcinoma cervix	2	4
8	Endometrial Carcinoma	2	4
9	Pyometra	1	2

Most of the hysterectomies were done for benign conditions and only 7 hysterectomies were done for the cases of suspicious malignancy.

Fibroid was the most common indication of hysterectomy (40%) followed by prolapse (20%).

One case showed fluid collection and dense adhesions and was diagnosed as pyometra on radiological investigation.

Hysterectomy was performed for 3 cases of endometrial polyp.

Prolapse cases were most commonly noted in post menopausal women

Table 4: Histopathological Diagnosis

S.no.	Histopathological diagnosis	No. of patients (n=50)	Percentage (%)
1	Leiomyoma	22	44
2	Adenomyosis	4	8
3	Atrophic endometrium	10	20
4	Disordered proliferative phase	3	6

5	Endometrial polyp	3	6
6	Carcinoma cervix / CIN	2	4
7	Serous carcinoma of endometrium	2	4
8	Dermoid cyst of ovary	1	2
9	Endometritis	1	2
10	Serous cystadenoma ovary	1	2
11	Granulosa cell tumor	1	2

The histopathological diagnosis of leiomyoma was seen in maximum hysterectomy specimens (44%). Adenomyosis was seen in 8% cases. All the cases of atrophic endometrium were found in hysterectomy specimens operated for uterine prolapse in post menopausal age groups. This is due to the incidence of prolapse usually in postmenopausal patients.

One case which was clinically diagnosed as pyometra showed features of endometritis.

Two cases of serous carcinoma of endometrium was diagnosed. Out of 3 cases clinically suspected as ovarian tumors, 1 was diagnosed as serous cystadenoma of ovary, 1 was diagnosed as dermoid cyst and the other was granulosa cell tumor. Out of the 3 tumors, 2 were benign tumors – serous cystadenoma and dermoid cyst and the other was malignant – granulosa cell tumor.

DISCUSSION:

Hysterectomy is the most commonly performed gynaecological surgery all over the world. There is a decline in the rate of hysterectomies performed due to the advent of newer treatment modalities like hormonal therapy, GnRH agonists, chemotherapy and radiotherapy. Limited surgical procedures like myomectomy and polypectomy are also performed.⁴ The decision to perform the surgery must be taken judiciously after considering the conservative methods of management.

Common complications after hysterectomy include haemorrhage (2.4%), genitourinary disorders (eg. urinary retention, renal or ureteral injury) (1.9%), urinary tract infection (1.6%) and infection other than that in the urinary tract (1.6%).⁵

In our study on 50 Cases of hysterectomy specimens, the surgery was performed in patients with age >30 years. Similar age group was seen in a study conducted by Shergill SK et al.⁶

Maximum cases were diagnosed as leiomyoma (36.6%) which is in accordance with the study conducted by Gangadharan V et al (41%).⁷

In a study conducted by Pandey et al in 2014,⁸ fibroid was diagnosed in 40% cases and prolapse in 16.3 % cases. Our study has fibroid in 30% cases and prolapse in 20% cases similar to the above study.

The diagnosis of dermoid cyst which is a germ cell tumor was made in a 60 years old postmenopausal patient. Though these occur most commonly in the reproductive age group, more than 25% cases have been diagnosed in postmenopausal women.⁹ This could be due to the late presentation of the patient with the symptoms.

There were 2 specimens of ovaries with size ranging from 1 to 18 cm, which on cut-section were mostly cystic and clear fluid came out. These were diagnosed as serous cystadenomas. A preliminary diagnosis of ovarian neoplasms was made in these cases on ultrasound examination, which necessitated the procedure of total abdominal hysterectomy with bilateral salpingoophorectomy to establish the confirmatory diagnoses.

In a postmenopausal patient of 50 years age who presented with the complaints of irregular, excessive vaginal bleeding and abdominal pain; on histopathological examination of ovary, the diagnosis of granulosa cell tumor was made. The endometrium was in proliferative phase. This could be due to the estrogen secreting nature of the tumor.¹⁰

There was one case diagnosed as villoglandular adenocarcinoma cervix in a 48 years old patient and on gross examination of the hysterectomy specimen, there was seen a growth measuring 1.5x1.2 cm with papillary projections into the endocervical canal and on serial cuts, the growth did not extend beyond 0.5 cm. Initially, on examination of PAP smear of this patient, diagnosis of HSIL was given and histopathological examination of cervical biopsy revealed surface

papillae that ranged from tall and thin to short and broad and contained central fibrous cores typically containing numerous inflammatory cells. The papillae were lined by stratified epithelial cells with slight to moderate nuclear atypicity and mitotic activity. A diagnosis of villoglandularadenocarcinoma was made.¹¹ Total abdominal hysterectomy was performed for patient management.

One case which was clinically diagnosed as pyometra showed features of endometritis. All the cases of atrophic endometrium were found in hysterectomy specimens operated for uterine prolapse. This is due to the incidence of prolapse usually in postmenopausal patients. In a study¹² majority of hysterectomy specimens were found out to have atrophic endometrium.

Adenomyosis was found in 10% cases, they were who presented with ultrasound diagnosis of the same. We have found that TVS diagnosis of Adenomyosis have high accuracy in our study.

Transvaginal ultrasound is the natural first choice of image modality when investigating pelvic pain or menstrual disorders, but correct diagnosis of adenomyosis is dependent on sonographers trained in pattern recognition of adenomyosis. When transvaginal ultrasound provides indefinite findings or when dealing with difficult cases with coexistence of other abnormalities (myomas and severe endometriosis), MRI may add information and increase the diagnostic performance.¹³

Endometrial polyps are diagnosed in 10% of cases. They are common pathological findings and is commonly associated with AUB.

According to Magon et al. hysterectomy is a surgery which has been used and misused, underused, and abused at different times in gynecology¹⁴

CONCLUSION:

Hysterectomy is the widely used treatment modality for various uterine pathologies. This study establishes high incidence of benign conditions of uterus mainly leiomyoma. A strong clinicopathological correlation has been found in the cases. Histopathological diagnosis is essential for the confirmation and for finding out any pathology that has been missed on clinical and ultrasound examination. Histological subtyping of various tumors helps in deciding the prognosis and best course of management.

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