



## Original Research Article

## A study on elective hysterectomies in a Tertiary care hospital

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## ABSTRACT

In spite of availability of many conservative methods to treat various benign gynaecological disorders, hysterectomy remains the mainstay of treatment. This is a hospital based Cross sectional study on 200 cases of elective hysterectomies carried out in the department of Obstetrics & Gynaecology, Fakir Mohan Medical College and Hospital Balasore, Odisha, India, from November 2018 to October 2020. Findings related to age, clinical presentations, indications, route of surgery, concurrent removal of ovaries, complications and histopathological study of uterine specimen were recorded and statistically analyzed. 48% were between the age group of 41-50 years. 52% presented with heavy menstrual bleeding. In 59% cases fibroid uterus was the indication for hysterectomy. 80% underwent abdominal hysterectomy and 20% vaginal hysterectomy. Both ovaries were removed in 55% cases. 3 % cases had intraoperative bleeding and 4% had wound gaping who required secondary suturing. Histopathological study of uterine specimen revealed endometrial hyperplasia in 14 % cases, non specific chronic cervicitis in 92% cases and leiomyoma in 59% cases. Heavy menstrual bleeding is the most common clinical presentation. Leiomyoma being the most common indication for hysterectomy. Abdominal route is preferred over vaginal route. Ovaries are preserved in several cases. Bleeding and wound gaping are the most common surgical complications. Proper selection of cases reduces the complication rate.

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## 1. Introduction

Hysterectomy is the surgical removal of uterus done for various benign and malignant conditions. With the emergence of many conservative approaches the indication for hysterectomy should be carefully evaluated as any surgical procedure is associated with risk of complications. Approximately 600,000 hysterectomies are performed annually in the United States.<sup>1</sup> Hysterectomy can be done through abdominal, vaginal and laparoscopic approach depending upon indication, nature of the disease, patient's preference and operative skill of the surgeon. In some cases it is combined with removal of adnexa called Hysterectomy

with salpingoophorectomy. Hysterectomy through Vaginal route is less invasive than abdominal hysterectomy and usually indicated in gynaecological disorders for prolapsed uterus. But nowadays vaginal hysterectomies are done for many benign conditions like uterine leiomyoma, adenomyosis and abnormal uterine bleeding with no uterovaginal descent, a term called non-descent vaginal hysterectomy.

## 2. Materials and Methods

Present study was carried out in the department of Obstetrics & Gynaecology, Fakir Mohan Medical College & Hospital, Balasore, Odisha, India to find out age distribution, clinical presentation, indications, route of hysterectomy,

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complications and histopathological study of uterine specimen of patients underwent elective hysterectomies. It is a Hospital based retrospective cross-sectional study done from November 2018 to October 2020 comprising of 200 cases. Institutional Ethics Committee approval was obtained. Cases of elective hysterectomies were identified from hospital records and data were analyzed by using Microsoft Excel.

### 3. Results

Data on 200 elective hysterectomies cases were analyzed over a period of two years. Majority of patients i.e. 48% were between age group of 41 to 50 years. Hysterectomy was done at less than 40 years of age in 8.5% cases and at more than 60 years in 12 % cases [Table 1].

In 59% cases elective hysterectomy was done for fibroid uterus. 16% cases for abnormal uterine bleeding, 15% cases for prolapsed uterus, 7% cases for benign ovarian mass and 3% cases for adenomyosis [Table 2].

Most common clinical presentation was heavy menstrual bleeding i.e., 52%, mass descending per vaginum 15%, lump per abdomen 14%, dysmenorrhoea 13% and postmenopausal bleeding in 6% cases [Table 3].

Majority of cases i.e., 24% were anaemic followed by hypertension in 23% cases. Other co-existing medical conditions were diabetes mellitus 18%, thyroid disorders 12% and Heart disease in 2% cases.[Table 4].

Abdominal route was preferred in 80% cases. Total abdominal hysterectomy (TAH) done in 25% cases and total abdominal hysterectomy with bilateral salpingoophorectomy (TAH with BSO) done in 55% cases. Vaginal route was preferred in 20% cases amongst which vaginal hysterectomy with pelvic floor repair (VH with PFR) was performed in 15% cases followed by NDVH (non-descent vaginal hysterectomy) in 5% cases [Table 5].

In 110 patients (55%) both Ovaries were removed during hysterectomy operation.

Bleeding was the most common intraoperative complication i.e. 3% followed by anaesthetic complications in 2% cases, bladder and ureteric injuries in 0.5% cases each. Post-operative complications were wound gaping in 4% cases, burst abdomen in 1% and urinary tract infection (UTI) in 1% [Table 6].

Proliferative endometrium was the most common endometrial study finding i.e. 48% followed by secretory endometrium 24%, simple hyperplasia 12%, atrophic changes 6%, complex hyperplasia 2%, endometritis 2%, progesterational changes 1.5 % and endometrial carcinoma in 0.5% cases [Table 7].

Non specific cervicitis was the most common cervical histopathological finding i.e. 92% followed by papillary endocervicitis 2%, cervical dysplasia 1.5% and adenocarcinoma in 0.5% cases [Table 8].

Myometrial histopathological study revealed leiomyoma in 59% cases, adenomyosis in 3%, nonspecific changes in 37%, chronic myometritis in 0.5% and endometrial adenocarcinoma in 0.5% cases [Table 9].

### 4. Discussion

Hysterectomy is a quite common major operative procedure. In our study 48% patients who underwent elective hysterectomy were between age group of 41-50 years. Ajmera S K et al. have reported peak age group of hysterectomy was 40-49 years with 41.51% cases.<sup>2</sup> Manik. S. Sirpurkar and Smita. S. Patne have reported 51.3% of hysterectomy patients were in the age group of 41-50 years in their study done on 230 hysterectomy cases at J.K. Hospital Bhopal.<sup>3</sup> In the present study, the commonest indication was fibroid uterus i.e., 59% cases. Manik. S. Sirpurkar et al. have reported that the commonest indication for hysterectomy was dysfunctional uterine bleeding (39.13%) followed by fibroid uterus (29.13%).<sup>3</sup> Bala R et al. have reported fibroid uterus in 40.7% hysterectomy patients in their study done at RIMS, Imphal on 1,285 cases of hysterectomy.<sup>4</sup>

In the current study most common clinical presentation was heavy menstrual bleeding (52%). Sucheta K L et al. in their prospective study of 200 cases of hysterectomy in Bangalore, India have found abnormal menstrual flow in 62% of cases.<sup>5</sup> Majority preferred abdominal route for hysterectomy (80%). Total abdominal hysterectomy with bilateral salpingo-oophorectomy was done in 55% cases and total abdominal hysterectomy alone in 25% cases. Vaginal hysterectomy was performed in 20% cases (15% for prolapsed uterus and 5% had no uterine descent). Rekha Rao et al. in their study on 150 hysterectomy patients observed that maximum no of hysterectomies were performed by abdominal route, total abdominal hysterectomy with bilateral/ unilateral salpingoophorectomy in 36.63% cases followed by vaginal hysterectomy with pelvic floor repair in 29.3% cases and 6.6% cases underwent Non-descent vaginal hysterectomy.<sup>6</sup>

In this study bilateral salpingoophorectomy was done in 55% cases while doing hysterectomy. Rajeshwari BV and Varsha Hishikar have reported both ovaries were removed only in 14.23 % cases in their retrospective study on 260 cases of hysterectomy operation.<sup>7</sup>

In the present study intraoperative complication rate during hysterectomy was 6%. Shridevi AS et al. in their study over 300 cases of hysterectomies at Davanagere, Karnataka, India reported the rate of intraoperative complication was 8.8%.<sup>8</sup> In our study 3% cases of hysterectomy had excessive bleeding and were managed medically and perioperative blood transfusion was given. One patient (0.5%) had bladder injury and another one (0.5%) had ureteric injury which was repaired with the help of surgeon. According to Zaman S et al. most common

**Table 1:** Age distribution of hysterectomy cases

S.No.	Age in Years	No. of Patients	Percentage (%)
1	31 - 40	17	8.5%
2	41 - 50	96	48%
3	51 - 60	63	31.5%
4	>61	24	12%
	Total	200	100%

**Table 2:** Indications for hysterectomy

S.No.	Indications	No. of Patients	Percentage (%)
1	Fibroid uterus	118	59%
2	Abnormal uterine bleeding	32	16%
3	Prolapsed uterus	30	15%
4	Adenomyosis	6	3%
5	Benign Ovarian mass	14	7%
	Total	200	100%

**Table 3:** Clinical presentation

S.No.	Complaints	No. of Patients	Percentage (%)
1	Heavy Menstrual Bleeding	104	52%
2	Lump per Abdomen	28	14%
3	Postmenopausal Bleeding	12	6%
4	Dysmenorrhoea	26	13%
5	Mass Descending per Vaginun	30	15%
	Total	200	100%

**Table 4:** Co-existing medical conditions

S.No.	Medical Conditions	No. of Patients	Percentage (%)
1	Anaemia	48	24%
2	Diabetes Mellitus	36	18%
3	Hypertension	46	23%
4	Thyroid disorders	24	12%
5	Heart disease	4	2%
6	No medical disorders	42	21%
	Total	200	100%

**Table 5:** Routes of hysterectomy

S.No.	Route	Type	No. of Patients	Percentage (%)
1	Abdominal	TAH	50	25%
		TAH with BSO	110	55%
2	Vaginal	NDVH	10	5%
		VH with PFR	30	15%
3	Laparoscopic	TLH	0	0%
		LAVH	0	0%
	Total		200	100%

complication of hysterectomy operation was secondary haemorrhage (1.12%) and Bladder injury was in 0.56% of cases.<sup>9</sup>In our study 2 patients (1%) had burst abdomen and another 2 patients (1%) had urinary tract infection. 4% of cases of hysterectomies operation had wound gaping and secondary suturing was done. Sivapragasam V et al. have reported wound infection in 4.54% cases and wound gaping requiring secondary suturing in 2%

cases.<sup>10</sup>Endometrial histopathological study of uterine specimen revealed endometrial hyperplasia in 14% cases in our study which is comparable to study done by Ranabhat et al. who reported its incidence of 16%.<sup>11</sup>Histopathological examination study of cervix revealed 92% cases had chronic non specific cervicitis. According to Talukder S I et al. 87.8% cases had chronic non specific cervicitis.<sup>12</sup> Leiomyoma was detected in 59% cases on histopathological

**Table 6:** Complications of hysterectomy

S.No.	Complications	Type	No. of Patients	Percentage (%)
1	Intraoperative complications	Bleeding	6	3%
		Bowel injury	0	0%
		Bladder injury	1	0.5%
		Ureteric injury	1	0.5%
		Anesthetics complications	4	2%
2	Postoperative Complications	Wound Gaping	8	4%
		Burst Abdomen	2	1%
		UTI	2	1%
	Total		24	12%

**Table 7:** Histopathological changes (Endometrium)

S.No.	Endometrial changes	No of patients	Percentage (%)
1	Proliferative Phase	96	48%
2	Secretary phase	48	24%
3	Atrophic changes	12	6%
4	Simple hyperplasia	24	12%
5	Complex hyperplasia	4	2%
6	Endometrial carcinoma	1	0.5%
7	Progestational changes	3	1.5%
8	Endometritis	4	2%
9	Normal Endometrium	8	4%
10	Total	200	100%

**Table 8:** Histopathological changes (Cervix)

S.No.	Cervical Changes	No. of Patients	Percentage (%)
1	Chronic non specific cervicitis	184	92%
2	Cervical dysplasia	3	1.5%
3	Papillary endocervicitis	4	2%
4	Squamous cell carcinoma	0	0%
5	Adenocarcinoma	1	0.5%
6	Normal Cervix	8	4%
	Total	200	100%

**Table 9:** Histopathological changes (Myometrium)

S.No.	Myometrial Changes	No. of Patients	Percentage (%)
1	Leiomyoma	118	59%
2	Adenomyosis	6	3%
3	Unremarkable/ Nonspecific	74	37%
4	Chronic Myometritis	1	0.5%
5	Endometroid adenocarcinoma	1	0.5%
	Total	200	100%

study of myometrium, whereas Abdullah L S in his study reported leiomyoma as myometrial lesion in 30.3% cases.<sup>13</sup>

## 5. Conclusion

Hysterectomy is a common operation in gynaecological practice. The conditions that may lead to a hysterectomy causes discomfort rather than threaten life. Indication for hysterectomy should be thoroughly evaluated as it is having both intraoperative and postoperative complications like any other major surgery. At present many conservative

methods are available to treat various benign gynecological conditions. So it is prudent to discuss with the patient regarding various options available before planning for major surgery. Vaginal route should be preferred as it is associated with faster return to normal activity, shorter hospital stays, reduced intraoperative blood loss and fewer wound infection.

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## 8. Conflicts of Interest

No conflicts of interest.

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