



## CLINICO-PATHOLOGICAL ANALYSIS OF HYSTERECTOMIES AFTER FAILED MEDICAL MANAGEMENT IN A PERIPHERAL MEDICAL COLLEGE-A RETROSPECTIVE STUDY.

**Sima Biswas**

RMO Cum Clinical Tutor, Department Of Obstetrics & Gynaecology, Rampurhat Govt. Medical College, West Bengal, India.

**Bivas Bala\***

Assistant Professor, Department Of Ophthalmology, Malda Medical College, West Bengal, India. \*Corresponding Author

### ABSTRACT

**Aims & objective:** To correlate & evaluate the indication, demographic features, clinical presentation, intraoperative findings, different types of operation & histopathological diagnosis of patients who underwent hysterectomy after unsuccessful medical management.

**Materials & methods:** This retrospective study done over 3 years from march 2017 to February 2020 in department of Obstetrics & Gynaecology of Rampurhat Govt. Medical college, West Bengal India. Case record & data of each patient was obtained from medical record section of the hospital and analyzed.

**Inclusion criteria:** Those underwent hysterectomy for Gyanecological indications after unsuccessful medical management.

**Exclusion criteria:** Hysterectomy for emergency condition like obstetric hysterectomy.

**Result:** During the study period 424 cases of hysterectomies were done, maximum (80.42%) with Abdominal route & 19.58% cases via vaginal approach. Total abdominal hysterectomy with bilateral salpingo-oophorectomy 273 cases (64.40%), vaginal hysterectomy with pelvic floor repair 58 (13.68%), total abdominal hysterectomy without oophorectomy 51 (12.02%), radical hysterectomy 17(4.00%). Maximum patients (64.63%) underwent hysterectomy at the age group of 41 to 50 yrs. Menorrhagia was commonest (61.32%) presenting complain. Leiomyoma was most common (27.12%) indication followed by abnormal uterine bleeding (22.17%), pelvic organ prolapses (11.57%). Dominant histopathological type was Leiomyoma (22.88%). Correlation of clinical diagnosis & histopathological finding were 92%. Among various post-operative complication urinary tract infection was most common (9.19%), Most of the post-operative complication was found in abdominal hysterectomy.

**Conclusion:** For treating pelvic pathologies like uterine bleeding, adenomyosis, fibroid, pelvic inflammatory disease, malignant disorder & genital prolapse hysterectomy is preferred procedure & abdominal route was most preferable route. Complication of vaginal hysterectomy is less than abdominal approach. Vaginal approach should be preferable approach.

**KEYWORDS :** Hysterectomy, Adenomyosis, Leiomyoma, Pelvic organ prolapse.

### INTRODUCTION;

Hysterectomy is the commonest major surgical procedure in gynaecology, second most common surgical procedure in women worldwide & almost every 3rd woman undergone hysterectomy at age 60 in US (1). Depending upon clinical factors & clinician, incidence of hysterectomy varies from place to place (2). In developed countries incidence is 10 - 20 %, where as in India 6 - 8 % (3). In 1880 mortality rate of hysterectomy was 70% but at present it is less than 0.1 % (4).

This is due to aseptic technique, antisepsis, safe anaesthesia & new generation antibiotics. Though various conservative management of uterine lesion are available still hysterectomy is the most preferred procedure in treatment of leiomyoma, adenomyosis, pelvic inflammatory disease & malignant disorder (5). Rate of hysterectomies also increased due to prophylaxis against uterine cancer, premenopausal menorrhagia & mild genital prolapse (6). In general, hysterectomies are performed to improve quality of life rather than to cure life threatening condition.

Hysterectomy should not be done prophylactically against mild abnormal cervical cytology or without a trail of medical management in endometrial hyperplasia. As per view of Dicker it is indicated when the risk of preserving uterus is greater than the risk of removal or when medical management fail to relief symptoms (7). Sometimes patients do not understand their symptoms & for this the findings often do not co-relate with their complaints, clinical & preoperative finding does not corelate with histopathological findings .Due to socioeconomic factors, availability of health care facilities, late seeking of medical care by rural women & when conservative treatment not possible ,the best treatment will be hysterectomy but morbidity and mortality can be kept low with proper case selection.

Different approach of hysterectomy includes Abdominal & vaginal approach. Abdominal consists of total abdominal hysterectomy, total abdominal hysterectomy with bilateral salpingo-oophorectomy, total laparoscopic hysterectomy, radical hysterectomy. Vaginal route includes vaginal hysterectomy, vaginal hysterectomy with pelvic floor repair, laparoscopy assisted vaginal hysterectomy, non-descend vaginal hysterectomy.

Most common indication of hysterectomy are uterine myoma, abnormal uterine bleeding, post-menopausal bleeding, endometrial hyperplasia, uterine prolapse, uterine polyp, endometrial carcinoma, carcinoma cervix. Leiomyoma, adenomyosis, endometrial hyperplasia is most common histopathological finding (8).

Success of the operation limited by variation in patient compliance, need for long term therapy & other side effects. The clinical & per-operative finding often do not co-relate with histopathological diagnosis. This retrospective study is to correlate & evaluate the sensitivity between the indication, approach, demographic features, clinical presentation, preoperative finding & histopathological diagnosis of the patient who underwent hysterectomy.

### MATERIALS & METHODS:

This retrospective study was carried out in the department of Gynaecology & Obstetrics, Rampurhat Govt. medical college West Bengal, India. We had analyzed each hysterectomy case done over the period from March 2017 to Feb 2020. Admission tickets & related documents of each patient was collected from the record section of the college & from there age, parity, clinical presentation, clinical findings, ultrasonographic findings were collected to establish the clinical diagnosis. Now we carefully rivew treatment history of each patients

including types of medication and duration. Only those patients who had history of unsuccessful medical management before hysterectomy were included in this study. The final indication, type of hysterectomy & operative finding of each of such patient with history of unsuccessful medical treatment was recorded for analysis. Histopathological finding of individual cases was collected from the patients during post-operative follow up visit. Finally, correlation between histopathological findings & clinical diagnosis was done in tabulated form.

**RESULT:**

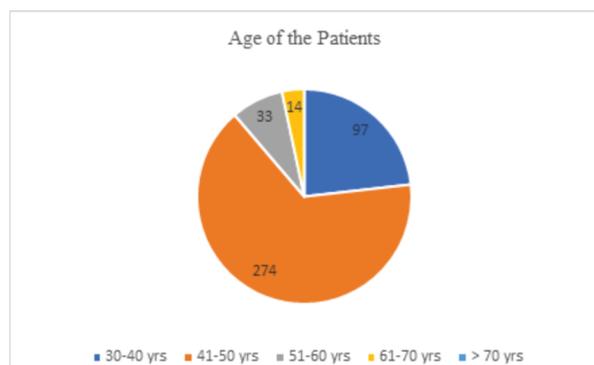
Total 509 hysterectomies were done over the period from March 2017 to Feb 2020. Of them 424 cases had the history of previous unsuccessful medical treatment before hysterectomy. All of them were enrolled for this study.

Table 1 shows types of hysterectomy done during this period. Of 424 cases Abdominal hysterectomy done in 341(80.42%) patients. Total abdominal hysterectomy with bilateral salphingo-oophorectomy was done in 273(64.40%), Total abdominal hysterectomy 51(12.02%), Radical hysterectomy 17 (4.00%) cases. Vaginal hysterectomy done in 83 (19.58 %) patients- out of these vaginal hysterectomy associated with pelvic floor repair were done in 58(13.68 %) cases and remainder undergo for non-descend vaginal hysterectomy 25 (5.90 %). Along with total abdominal hysterectomy with bilateral salphingo-oophorectomy 5 cases were underwent infracolic omentectomy, 4 cases omental biopsy, while 2 cases underwent appendectomy. In vaginal hysterectomy group 4 cases concurrent trans-obturator tape placement was done to treat urinary incontinence.

**Table 1: Types of hysterectomy**

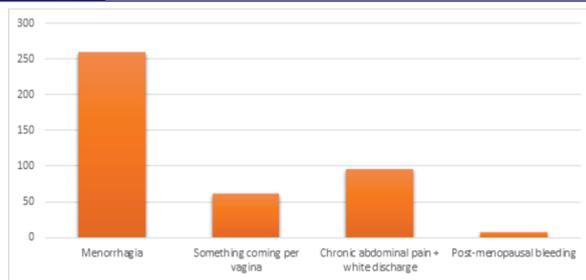
Types of Hysterectomy	Number of cases	Percentage
TAH+BSO	273	64.40%
TAH	51	12.02%
Radical	17	04.00%
VH+PFR	58	13.68%
NDVH	25	05.90%
<b>Total</b>	<b>424</b>	<b>100%</b>

Maximum hysterectomy was done in the age group of 41 to 51 yrs. Out of 424 patients 274 (64.63%) are in this group with mean age is 42.5yrs. Only 6 (1.47%) cases underwent hysterectomy above the age 70 yrs. (Figure 1).



**Figure 1: Age distribution of patients**

Figure 2 shows the clinical presenting features, 260 (61.32 %) patient presented with menorrhagia was the most common presentation. Next common presenting features was chronic abdominal pain with white discharge seen in 95 (22.41%) patients. Others less common presentation were something coming per vagina in 62 (14.62%) cases and post-menopausal bleeding 7(1.65 %).



**Figure 2: Clinical presentation of cases**

As shown in table 2 Leiomyoma was the most common clinical diagnosis seen in 115(27.12%) cases followed by abnormal uterine bleeding 94(22.17%), pelvic organ prolapses 49(11.57%), benign ovarian tumour 43(10.14%), endometrial hyperplasia 9.90%, endometriosis 38(8.97%), chronic pelvic pain & CIN 3 was 26(6.13%) & 17(4%) cases respectively.

**Table 2: Indication of hysterectomy**

Indication	Number of cases	Percentage
Abnormal uterine bleeding	94	22.17%
Leiomyoma	115	27.12%
Benign ovarian tumour	43	10.14%
Endometrial Hyperplasia	42	9.90%
Pelvic organ prolapses	49	11.57%
Endometriosis / Adenomyosis	38	8.97%
Chronic pelvic pain	26	6.13%
CIN II/III	17	4.00%
<b>Total</b>	<b>424</b>	<b>100%</b>

Table 3 describes histopathological findings - most common histopathological variant was Leiomyoma seen in 97(22.88%) patients, second most common was Adenomyosis 92(21.70%) followed by Endometrial hyperplasia 61(14.39%), proliferative endometrium 33(7.78%), benign ovarian tumour 37(8.73%), chronic cervicitis 35(8.25%), features of both adenomyosis & leiomyoma 40(9.43%). 1.89% & 4.95% cases showed features of CIN II/III & atrophic endometrium.

**Table 3: Histopathological findings of cases**

Histopathological finding	Number of cases	Percentage
Leiomyoma	97	22.88%
Adenomyosis	92	21.70%
Endometrial hyperplasia	61	14.39%
Benign ovarian tumour	37	8.73%
Adenomyosis with Leiomyoma	40	9.43%
Chronic Cervicitis	35	8.25%
Proliferative Endometrium	33	7.78%
Atrophic Endometrium	21	4.95%
CIN II/III	8	1.89%
<b>Total</b>	<b>424</b>	<b>100%</b>

There were various post-operative complications recorded during this study period (figure 3). 39(9.19 %) patients suffered from urinary tract infection, most common complication seen, followed by abdominal pain 34(8.01%), fever 28(6.60%), wound infection 12(2.83%), secondary haemorrhage 7(1.65%). Only 5(1.17%) cases were complicated by vault granuloma which was only seen in after vaginal hysterectomy. Incidence of complication was less in vaginal hysterectomy than abdominal. One patient develops more than one complication.

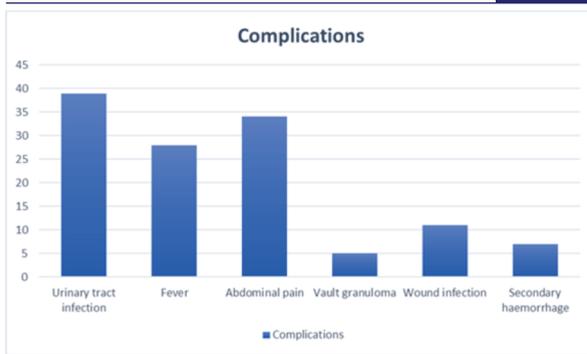


Figure 3: Post-operative complications

#### DISCUSSION:

In this study, abdominal approach was recorded as most (80.42%) common approach & total abdominal hysterectomy with bilateral salpingo-oophorectomy is the commonest (64.40%) type of hysterectomy. Bukar M, Audu B et al. (9) done a similar type of retrospective study at Nigeria where 79.3% cases were done by abdominal route. Neelgund SM et al. (10) done a retrospective analysis in India where 81.4% cases were done via abdominal approach.

In our study rate of vaginal hysterectomy is 19.58% which is similar with L. Bukhari et al 18.3% (11) & Neelgund et al 13.6% (10). Mean age of hysterectomy in this study is 42.5 yrs. & maximum (64.63%) case of hysterectomy was seen in the age group of 41-50 yrs. A study by Chryssikopoulos et al. (12) reported that 74.77% abdominal hysterectomy were of aged 36 to 55 years.

Menorrhagia is the main presenting complaints (61.32%) in this study. Shergill et al. (13) reviewed 100 cases of hysterectomy and found 66% women were complaining about abnormal menstrual flow.

Regarding clinical presentation our study shows menorrhagia is the main presenting complain (61.32%) followed by chronic abdominal pain with white discharge (22.41%). Something coming per vagina and post-menopausal bleeding are complain of 14.62% and 1.65% cases respectively. These results are similar to study done by Neelgund et al. in India where menorrhagia was seen in 63.4% cases, mass descending per vagina in 12.9% and post-menopausal bleeding in 1.1% (10). Shergill Sk. Et al. also reported in their study that menorrhagia was chief complain in 66% patients which is similar to our study result of menorrhagia 61.32% (13).

Leiomyoma (27.12%) followed by abnormal uterine bleeding (22.17%) are main indication for hysterectomy in our study. Isaoglu et al. reported leiomyoma as an indication for hysterectomy in 28.19% cases. (8). Ishrat S et al. reported that hysterectomy done for fibroid in 28% cases & abnormal uterine bleeding 21% cases (14). In our study other indication of hysterectomy are benign ovarian tumour 10.14% pelvic organ prolapse 11.57%, endometrial hyperplasia 9.90%, CIN III 4%, endometriosis 8.97% which are similar to the study done by Neelgund et al (10). Regarding histopathological diagnosis in our study leiomyoma is predominant (22.88%) followed by adenomyosis (21.70%), endometrial hyperplasia (14.39%), adenomyosis & leiomyoma (9.43%), benign ovarian tumour ( 8.73%) , chronic cervicitis( 8.25%), proliferative endometrium (7.78%), atrophic endometrium (4.95%), CIN III (1.89%) - these result are similar to study of Neelgund et al (10). Sobande AA et al reported leiomyoma was commonest (25.8%) histopathological diagnosis followed by adenomyosis (22.7%). (15). In this study on histopathological examination Endometrial hyperplasia was seen in 14.39 % cases which is similar to study of Ranabhat et al. (16), Isaoglu et al (8), Neelgund et al (10). Most of Benign ovarian tumor

diagnosed clinically & proven histologically. Atrophic endometrium diagnosed mainly in uterovaginal prolapse specimen & proliferative endometrium more than 45yrs aged patient with abnormal uterine bleeding. Chronic cervicitis was clinically diagnosed & histologically proven. Cervical intraepithelial neoplasia (CIN III) was detected by Papanicolaou smear stain & proved by histology. Correlation between preoperative diagnosis & histopathologic finding are 90 - 100%. Most common post-operative complication in this study are urinary tract infection (9.19%) followed by abdominal pain (8.01%), fever (6.60%), wound infection (1.65%), vault granuloma (1.17%) - incidence of these are similar to study done by Nazneen R et al (17).

#### CONCLUSION:

Hysterectomy is the preferred procedure for treatment of pelvic pathologies like leiomyoma, pelvic organ prolapses, adenomyosis, pelvic inflammatory disease, malignant disorders. Most common route of hysterectomy is abdominal approach. Choice of approach related to underlying indications of surgery, need for adnexal surgery, surgeon's preference. Most common age of hysterectomy is 41-50 years; preservation of ovaries depends on age of patient as well as condition of ovaries & target is to preserve ovaries below 40 yrs. This study revealed that leiomyoma is the most common indication as well as most common histopathological finding. This study also suggest that histopathological examination of hysterectomy specimen is must for post-operative treatment because there may be some unusual finding in histopathological examination which need extensive post-operative management.

Since our institute is a new medical college situated in rural Bengal, there is no in-house facility for histopathological examination, laparoscopic surgery & facility for radiotherapy or chemotherapy. So, availability of advanced as well as extensive surgery is not possible here. It is also a single centre study so, a large multi-centre study may revealed more accurate analysis.

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