

Review of Hysterectomies at NMCTH: A Retrospective Study

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Abstract

Introduction	Hysterectomy is one of the most common gynecological procedures performed all over the world. It can be performed by both abdominal and vaginal route.
Objectives	To study the age, indications, route of hysterectomy, conservation / removal of ovaries and post-operative complications.
Methods	Retrospective study of all cases of hysterectomies for benign condition for 1 st Jan 1998 to 31 st Dec 2004, in Nepal Medical College Teaching Hospital, Kathmandu.
Results	Total 638 hysterectomies were performed during the study period of which 353 (55.3%) were vaginal hysterectomy pelvic floor repair (VH – with PFR) and 285 (44.7%) were total abdominal hysterectomy (TAH). Maximum number of cases 218 (34.1%) was age group of 41-51 years, ovaries were conserved in 30.2 percent of abdominal hysterectomies and in all cases of vaginal hysterectomy.
Conclusion	In the study majority of hysterectomy was performed in women of age group 30-50 years and common indicate being utero-vaginal prolapse.
Key words	Hysterectomy, Utero-vaginal prolapse, Leiomyoma, Pelvic inflammatory disease (PID), Dysfunctional uterine bleeding (DUB).

Introduction

Hysterectomy is one of the most common gynecological procedures performed world over. It can be performed by both abdominal and vaginal route. Despite the introduction of endometrial ablation techniques, hysterectomy remains the most common major gynecological operation performed in UK. The prevalence rate ranges from 8.5 percent of women in France to 17 percent in Australia & US¹. In the epidemiological study done in 1992; the prevalence rate was 11.1 percent. Vaginal hysterectomy was performed predominantly for prolapse whereas abdominal hysterectomy with bilateral salpingo-oophorectomy for fibroids and menstrual problems². But recent study done in one of the reputed hospitals in India, out of 617 hysterectomies, 548 were performed vaginally, laparoscopic assistance was used in 63 patients and abdominal approach was required in only 6 patients³.

In 1825 Langenbeck made the first attempt to remove the uterus through the abdominal incision whereas in 1934, Heaney first reported the technique of vaginal hysterectomy. But it was once viewed skeptically, until in 1940, Telinde and expert vaginal surgeon,

regenerated interest in vaginal surgery and began training gynecologists⁴. Recently, minilap assisted vaginal hysterectomy, minilap hysterectomy for non-descent uterus and laparoscopic assisted vaginal hysterectomy are in trend in India³. But in our setup mainly total abdominal hysterectomy and vaginal hysterectomy are performed. The common indications for hysterectomy are leiomyoma, prolapse, endometriosis, CIN and endometrial hyperplasia.

Methods

This is a retrospective study carried out in Nepal Medical College Teaching Hospital, situated in suburban area of Kathmandu. The study period was from 1st Jan 1998 to 31st Dec. 2004 over 6 years period. Cases of hysterectomies for benign lesions were identified from the hospital records. The case records were reviewed for age, indications, route of surgery whether abdominal or vaginal, conservation/removal of ovaries and post-operative complications. Data was entered in simple tables and analyzed.

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Results

Total 638 hysterectomies were performed during the study period, of which 353 (55.3%) were vaginal and 285 (44.7%) were TAH.

Figure 1: Type of hysterectomy.

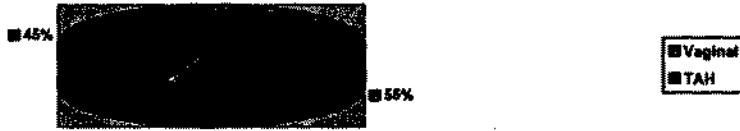


Table 1 : Age group of the cases

Age group (in years)	Number	(%)
21-30	33	(5.3)
31-40	174	(27.2)
41-50	218	(34.1)
51-60	131	(20.5)
> 61	82	(12.9)
Total	638	(100)

Maximum number of cases was in the age group of 41-50 Yrs. Thirteen of the 33 patients in the age group of 21-30 yrs had uterovaginal prolapse, eight had chronic

pelvic pain, seven had adenomyosis, three had leiomyoma and one had CIN III.

Table 2: Indications for hysterectomy

Indications	Number	(%)
Leiomyoma	116	(40.7)
DUB	75	(26.3)
PID	69	(24.2)
CIN	8	(2.8)
U.V.Prolapse	4	(1.4)
Others	13	(4.6)
Total	285	(100)

The commonest indication for abdominal hysterectomy was leiomyoma and for all vaginal hysterectomy was

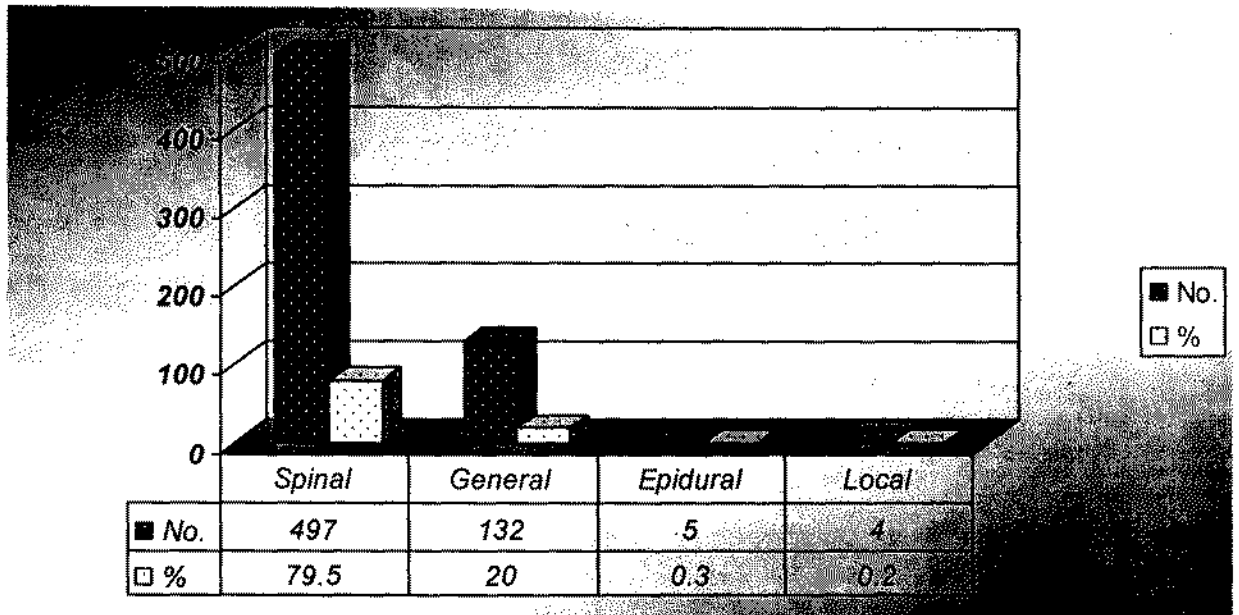
utero-vaginal prolapse.

Table 3: Conservation/removal of ovaries in TAH

Ovaries conserved/removed	Number	(%)
Both ovaries removed	199	(69.8)
One ovary conserved	19	(6.7)
Both ovaries conserved	67	(23.5)
Total	285	(100)

In majority of cases of TAH bilateral ovaries were removed whereas in all cases of vaginal hysterectomy ovaries were conserved.

Figure 2 : Type of anesthesia



Majority of cases received spinal anesthesia. Almost all the cases of VH and some of the cases of TAH were performed under spinal anesthesia. Nevertheless few cases of vaginal hysterectomy also received general

anesthesia due to failure of spinal anesthesia. One case of VH with severe COPD and another with major heart problem had epidural anesthesia.

Table 4: Post operative complications (VH) – (353 cases)

Complications	Number	(%)
Spinal headache	17	(4.8)
Retention of urine	5	(1.4)
Secondary hemorrhage	1	(0.3)
Pelvic abscess	2	(0.6)
Hemoperitoneum	1	(0.3)
Total	26	(7.4)

Table 5: Postoperative complications (TAH) - (285 cases)

Post operative complications	Number	(%)
Spinal headache	5	(1.8)
Wound gapping	22	(7.7)
Death due to septicemia	2	(0.7)
Secondary hemorrhage	2	(0.7)
Hematoma of wound	2	(0.4)
Total	33	(11.5)

The post operative period was uneventful in 562 (91.4%) of all cases.

All cases of vaginal hysterectomy were combined with pelvic floor repair i.e. anterior colporrhaphy and posterior colpoperineorrhaphy, as they were associated with some degree of cystocele/rectocele. 425 (66.6%)

cases received blood transfusion (maximum 4 units) intra or post operatively.

The mean hospital stay for TAH group was 8.4 days while that for VH group was 8.7 days.

Discussion

Though in some Latin American countries hysterectomy is performed for sterilization or cancer prophylaxis, more than 90 percent of all gynecological surgery is performed for non-malignant conditions with major objective of improving the patient's health related quality of life⁵. Vital health statistics survey done by US Department of Health and Services reports that average age for women undergoing hysterectomy was 42.7 yrs median age was 40.9 yrs. Most common indications were leiomyomas (26.8%), prolapse (20.8%), endometriosis (14.7%), malignancy (10.7%) and endometrial hyperplasia (6.2%), the remaining 20.7 percent included disorder of menstruation and abnormal bleeding, diseases of parametrium or pelvic peritoneum, infection and other diseases of cervix, ovaries, fallopian tube, obstetric catastrophe and benign neoplasia other than leiomyoma^{6,10}. In our study also, indications were similar in our study also.

In a study done in western Nepal, majority of women who underwent hysterectomies were of age group 30-50 yrs⁷, which is consistent with our study, maximum no. of cases being in the age group 30-50 yrs. Unlike in developed countries it was found that uterine prolapse was most common indication for hysterectomy. Similar result was observed in above-mentioned study in western Nepal. It reflects the high prevalence of uterovaginal prolapse in Nepal. Though in one of the remote regions of Nepal, Manang there was not even a single case of uterine prolapse, during Gynaecology camp. It partly may be due to social culture and tradition, where ethnic groups take rest following delivery for 2-3 months. Whereas in one of the far western Districts, Doti almost every second women had uterine prolapse⁸. This reflects the poverty stricken hardship; the women in those areas have to go through. Nevertheless, even the women of well to do family, also had prolapse. The predisposing factors being early age of marriage, lack of post-natal rest, heavy workload and smoking habit of the rural women⁹.

The second commonest indication for hysterectomy was leiomyoma. The decision to perform a hysterectomy for leiomyoma was usually based on the need to treat symptoms like menorrhagia, severe dysmenorrhoea, pelvic pressure, ureteral compression or rapid uterine enlargement¹⁰.

Majority of cases of uterovaginal prolapse underwent vaginal hysterectomy along with repair of pelvic floor. Only 4 cases of prolapse had abdominal hysterectomy due to associated pathologies. One had uterovaginal prolapse associated with fibroid uterus, second had associated ovarian cyst and other two had cystocele and rectocele with minimal uterine descent. In all 4

cases pelvic floor repair was performed. The removal of ovaries at the time of hysterectomy is recommended if the women are perimenopausal¹¹. In our study, bilateral salpingo-oophorectomy was done in patients who had ovarian cysts, and those who were over 45 yrs of age. Ovaries were preserved in younger age group. Unilateral ovarian preservation was done when one of the ovaries was diseased. Ovarian preservation was done to ensure the maximum natural hormonal benefits on bone mass, cardiovascular system, genitourinary function and psychological well being of the patients.

Majority of cases (79.5%) spinal anaesthesia was given. The advantages of spinal anaesthesia being, the easier technique and no need of inhalation anesthesia, though post-spinal headache occurred in 4.5 percent of the cases.

Since blood loss, anemia and fatigue have a substantially negative impact on quality of life and daily activities performance, following surgery¹²; every measure was taken to minimize surgical blood loss. Peri-operative blood transfusion, post-operative supplement with iron was also given.

In our data analysis, post operative complication rate was 8.6 percent. Complications were more common following abdominal hysterectomy as compared to vaginal hysterectomy. Many studies show that vaginal hysterectomy is associated with significantly fewer complications, shorter hospital stay and faster recovery than abdominal hysterectomy. In large multi centric retrospective study conducted by US Center for Disease Control over the period of four years, the overall complication rate was 20.5 percent for vaginal hysterectomy compared with 42.8 percent for abdominal hysterectomy⁶. It showed that the risk for one or more complications after abdominal hysterectomy was 1.7 times the risk for vaginal hysterectomy.

One of the studies done in Pakistan has shown the mean hospital stay for TAH group to be 8.7 days and that for VH group to be 5.4 days¹³. But in our study, it showed shorter hospital stay for TAH group than for VH group. The reason may be due to the fact that most of the cases of VH were of older age group and they had some pre-existing medical conditions like heart diseases, respiratory diseases which needed extra care and more hospital stay.

Conclusion

In our study majority of hysterectomies were performed in women of the age group 30-50yrs and common indication being utero-vaginal prolapse, as in several

other studies done in Nepal. Poverty alleviation, educating mothers, sharing of hardship by male partners, health education, awareness and availability of health facilities, antenatal and postnatal counseling, changing the smoking habit of the rural women and conduction of deliveries by trained personnel would decrease the incidence of prolapse in Nepal.

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