

Hysterectomies at a rural medical college of Assam: A retrospective study

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ABSTRACT

Objectives: To study age, indications, route of hysterectomies, conservation /removal of ovaries and postoperative complications. **Methodology:** Retrospective studies of all the women attending FAA Medical College from March 2012 to February 2014 and requiring hysterectomy for benign and premalignant conditions. **Results:** Total 270 hysterectomies were performed during the study period of which 70(32.22%) were vaginal hysterectomy with pelvic floor repair, 17(11.47%) were NDVH, 5(1.85%) Hysterectomies were done laparoscopically and 178(65.93%) were total abdominal hysterectomies. Maximum number (27.03%) of cases was in the age group of 36-40 years. **Conclusion:** Majority of the hysterectomies were performed in the age group 36-40years. Most common indication is symptomatic uterine fibroid.

Keywords: Hysterectomy, fibroid, DUB, UV Prolapse.
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Hysterectomy is one of the most frequently performed major gynaecological procedures both for benign and malignant conditions of the uterus [1-3]. Hysterectomy for benign gynaecological conditions are usually undertaken to improve the quality of life of affected women [4-5].

Hysterectomy may be completed using abdominal, vaginal or laparoscopic approach, and the choice of approach is influenced by many factors. [1, 5]. Some of the benign conditions for which hysterectomy can be performed include uterine leiomyoma, uterovaginal prolapse, menstrual disorders, cervical intraepithelial neoplasm, endometrial or cervical polyps, chronic pelvic pain and

adenomyosis [1,3,5].

The incidence of hysterectomy varies from country to country. In the developed countries, the incidence is high and increasing. In the United Kingdom, it is estimated that about 20% of the women would have undergone hysterectomy by the age of 50years mainly for menstrual disorders and uterine fibroids [6, 7]. In the United States of America, hysterectomy is the second most frequently performed surgical procedure after Caesarean section and it is estimated that at least one in three women would have had a hysterectomy before the age of 60 years [8]. In developing countries, most women would reject hysterectomy for fear of surgery,

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loss of femininity and concerns about future fertility after reincarnation [9].

Hysterectomy may be accomplished using different approach as noted earlier and the choice of which to use depends on a number of clinical factors and the expertise of the surgeon [1, 10]. Abdominal hysterectomy allows the greatest ability to manipulate pelvic organs and is preferred if large pelvic organs or extensive adhesions are anticipated. It also offers good access to the ovaries if oophorectomy is desired. However, abdominal hysterectomy is associated with longer patient recovery and long hospital stay, greater risk of postoperative fever, and wound infection when compared to vaginal hysterectomy [10]. Supra-cervical hysterectomy (or subtotal hysterectomy) was thought to have advantage over Total Abdominal Hysterectomy (TAH) in improving urinary symptoms and preservation of sexual function. This tilted the balance in favour of subtotal hysterectomy in the 1990s [11, 12]. However, randomized studies have shown that abdominal supra-cervical hysterectomy offers no distinct advantages over TAH and in fact there is the risk of cervical cancer and persistent bleeding following supra-cervical hysterectomy [13, 14]. These are usually done for multiparous women between their 4th and 6th decades of life [15-17]. Complications of hysterectomy include injury to the urinary system (ureter and bladder), postoperative fever, urinary tract infection, wound infection, pelvic haematoma or infection, injury to the bowel among others [1, 17, 18]

In our environment, hysterectomy is one the most commonly performed procedures and remains an effective and safe intervention for many women with a variety of benign gynaecological disorders

Material and Method

This study was carried out in the Gynaecology Department of FAA Medical College Hospital, Barpeta, Assam. This was a retrospective study of all the cases of hysterectomy from 1st March 2012 till 28th February 2014. Cases of hysterectomy for benign conditions were identified and their case records used to assemble data for age, parity, indications,

menstrual history, and route of the surgery and post operative complications. Histopathology reports were also obtained for these patients. All the data were summarized and tabulated. Obstetrical hysterectomies were excluded from the study.

Result and Observation

A total of 270 hysterectomies were done during the study period. Out of this 87(32.22%) were vaginal hysterectomies, 5 were laparoscopic hysterectomies while the remaining was abdominal (65.93%) [table 1].

Table 1: Type of hysterectomy

Hysterectomy		%
Type	Number	
TAH	178	65.93
VH	70	32.22
NDVH	17	11.47
LAVH	3	1.11
LH	1	0.37
TLH	1	0.37

Table 2: Age group of the cases

Age	Hysterectomies	
	Number	Percentage
<25	1	0.37
25-30	22	8.14
31-35	38	14.07
36-40	73	27.30
41-45	49	18.14
46-50	50	18.51
51-55	18	6.66
56-60	7	2.59
>60	12	4.44

Table 3: Indications for hysterectomy

Indications	Number (n=270)	%
Fibroid uterus	107	39.63
DUB	40	14.81
Ovarian tumour	19	7.04
Adenomyosis	8	2.96
Polyp	11	4.07
PID	5	1.85
UV Prolapse	71	26.29
Chronic uterine inversion	2	0.74
CIN	2	0.74
Persistent molar pregnancy	1	0.37
Chronic cervicitis with hypertrophied elongation	2	0.74
A-V malformation of uterus with menorrhagia	1	0.37
PMB	1	0.37

Maximum numbers of cases were in the age group 36-40 years. Almost half (49.88%) of the hysterectomies were done in women of ≤40 years of age [table 2].

The indications for hysterectomy are shown in table 3. The leading indications for hysterectomy were uterine fibroid with or without heavy menstrual bleeding 107 (39.63%), while Uterovaginal Prolapse, 71 (26.29%) was the second most common. Other indications include dysfunctional uterine bleeding 40 (14.18%), ovarian tumour 19 (7.04%), Endometrial& cervical Polyps 11 (4.07%), Adenomyosis 8 (2.96%), PID 5(1.85) and others such as chronic cervicitis with hypertrophied elongation, CIN, chronic uterine inversion, persistant molar pregnancy etc.

Table 4: Conservation / removal of ovaries in TAH

	Number (N=178)	%
Both ovaries removed	63	35.39
One ovary removed	37	20.79
Both ovaries conserved	78	43.82

Table 5: Religion of cases undergoing hysterectomy

Religion	Number	%
Hindu	133	49.26
Muslim	137	50.74

Table 6: Inhabitation of cases undergoing hysterectomy

Inhabitation	Number	%
Urban	52	19.26
Rural	218	80.74

Among those who had abdominal hysterectomy, 63 (35.39%), had hysterectomy with bilateral salpingo-oophorectomy, 78 (43.82%) had total hysterectomy without oophorectomy while 37 (20.79%) had hysterectomy with unilateral salpingo-oophorectomy [table 4]. Subtotal hysterectomy was done in only 1 case because of grade 4 endometriosis causing dense adhesion. The most common complaints included excessive menstrual bleeding, something coming out of the vagina and chronic pelvic pain. In 39.39% of the cases of TAH bilateral ovaries were removed. In all cases of vaginal hysterectomy ovaries were conserved. All cases of vaginal hysterectomy were associated with pelvic floor repair.

50.74% cases were Muslim by religion whereas 49.26% cases were Hindu [table 5].

Most of the patients were from rural areas (80.74%).19.26% women hailed from urban areas [table 6].

Majority (83.33%) of the cases were performed Under spinal anaesthesia. 28(10.37%) Cases received GA, 13(4.81%) received EA, 4(1.48%) received CSE. Failure of SA was observed in 3.56% cases and failure of EA was seen in 15.38 % cases [table 7].

Table 7: Type of Anaesthesia

Type	Number	%
SA	225	83.33
EA	13	4.81
CSE	4	1.48
GA	28	10.37

Table 8: Complications of hysterectomy (N=270)

Complications	Abdominal (N=178)	Vaginal (N=87)
	Number (%)	Number (%)
Bowel injury	1 (0.56)	1 (1.15)
Secondary haemorrhage	2 (1.12)	-
Pelvic haematoma	1 (0.56)	-
Vault prolapsed	-	1 (1.15)
UTI	-	(1.15)
Vault cellulites	1 (0.56)	1 (1.15)
Bladder injury	1 (0.56)	-

The most common complications were secondary haemorrhage (1.12%) in abdominal hysterectomy. Other complications were bowel injury (0.56%), bladder injury (0.56%), urinary tract infection (0.56%), pelvic haematoma (0.56%), vault cellulites (0.56%) [table 8]. The rate of complications in abdominal cases was 3.36 % and in vaginal hysterectomies the rate was 4. 6%. Complications of vaginal hysterectomies were rectal injury (1.15%), secondary haemorrhage (1.15%), vault prolapsed (1.15%), vault cellulites (1.15%) t the vaginal hysterectomies no complications were observed in NDVH.

Discussion

More than 90% of gynaecological surgeries are performed for benign conditions with the major objective of improving the patient’s health related quality of life [19]. This study showed

that the commonest indication for hysterectomy was fibroid uterus (39.63%) followed by uterovaginal prolapse. Sirpukar et al. [20] reported 29.13% hysterectomies for Fibroid Uterus. The Canadian study revealed abnormal uterine bleeding (AUB) as the indication for hysterectomy in 37% cases [9]. In Nigeria fibroid uterus was the commonest indication for hysterectomy in 62.3% cases [10]. Saudi women underwent hysterectomy for fibroid uterus in 41.6% cases and dysfunctional uterine bleeding (DUB) in 27.1% [11]. Operative complications are common in surgery for fibroid as compared to surgery for DUB, diseases of parametrium or pelvic peritoneum, infection and other diseases of cervix, ovaries, fallopian tube, obstetric catastrophe and benign neoplasia other than leiomyoma [21, 22]. Such findings have also been found in our study. Excessive menstrual bleeding was the main indication for HT (52/70; 74%) and uterine prolapse and fibroid were the other indications as reported by Amarjeet Singh and Arvinder Kaur Arora [23]. Similar indications have also been reported by Pradhanang V et al in their study in Nepal [24].

Recently a fall in the use of hysterectomies has been seen due to use of laparoscopic and hysteroscopic procedures, endometrial ablation devices, progesterone based intra uterine devices and umbilical artery embolisation as a substitute to hysterectomy [25]. To reduce the number of hysterectomy and associated complications less invasive alternate treatment methods can be tried. 65.92% hysterectomies were performed abdominally in our study as compared to 55% in the study by Pradhanang V et al [24]. Onyeabochukwu DA et al. also reported similar rate of abdominal hysterectomy [27].

Majority of the cases of fibroid were operated usually to treat symptoms of menorrhagia, severe dysmenorrhoea, pelvic pressure, ureteral compression or rapid uterine enlargement [23]. Most of the cases of prolapse underwent vaginal hysterectomy with pelvic floor repair. Only 2 cases had abdominal hysterectomy due to associated pathologies. One had uterovaginal prolapse associated with uterine fibroid and another had associated ovarian cyst. In our study, bilateral salpingoophorectomy was done in

patients who had ovarian cysts & those who were over the age above 45 years. Ovaries were preserved in younger age group. Unilateral ovarian preservation was done when one of the ovaries was diseased. It is recommended that in perimenopausal women the ovaries should be removed during hysterectomy (26). Such was the case in this study also.

In our study majority of the women who underwent hysterectomy were in the age group 36-40 years. Pradhanang V et al [24] reported maximum number of hysterectomies in the age group 41-50 similar to Sirpukar et al [21]. In our study, minimum age of hysterectomy was 24 years who suffered from submucous fibroid with menorrhagia. Lack of hysteroscopy & hysteroscopist is the case of hysterectomy in such a younger age. On the other hand maximum age of hysterectomy was 70 years who was a case of second degree Vaginal Prolapse with cystocele & rectocele.

In our study 83.33% of the cases were performed under spinal anaesthesia which is similar to the study done by Pradhanang V et al [24] who reported 79.5% hysterectomies under spinal anaesthesia.

Post operative complications were found to be common in Vaginal hysterectomy compared to Abdominal hysterectomy. A large multicentre retrospective study in the US by Centre for Disease Control showed that the rate of complications is 1.7 times more in abdominal hysterectomy as compared to the vaginal route [21]. This study showed the rate of complication was 4.07% of which 4.6% in vaginal hysterectomies and 3.36% in abdominal hysterectomies. Pradhanang V et al [24] reported post operative complications rate as 8.6% in their study. Sirpukar et al. [20] showed the rate of complication to be 20.5% in vaginal hysterectomies and 42.8% in abdominal hysterectomies.

Conclusion

In our study majority of the hysterectomies were performed in women of the age group 36-40 years and most common cause of conducting hysterectomy is symptomatic uterine fibroid. As this is fraught with complications alternative

methods should be tried for such condition.

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