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Original Research Article

A study on clinico-pathological analysis of hysterectomies

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ABSTRACT

Background: Routes for hysterectomy include abdominal, vaginal, laparoscopic, or combined approaches. Traditional abdominal hysterectomy (AH) is one of the most common gynaecological surgical procedures in the treatment of benign gynaecological diseases. However, AH as the most invasive procedure, is associated with some limitations such as abdominal trauma, intraoperative and postoperative complications, and slow postoperative recovery.
Methods: All the patients attending Gynecology outpatient department with symptoms were assessed with history and clinical examination by the Consultant Gynecologist and investigated. Those requiring hysterectomy were analyzed by the Consultants for the approach depending on the indication for the surgery, nature of the disease and patient characteristics.
Results: The most common indication for hysterectomy was prolapsed uterus (29.4%) followed by menstrual disorders (25.8%), leiomyoma (22.9%), and PID (12.3%).
Conclusions: Hysterectomy is successful in relieving pain, carcinomas and obstetric complication.

Keywords: Complications, Hysterectomy, Histopathology

INTRODUCTION

Hysterectomy is one of the most frequently performed major surgical procedures in women worldwide. The highest rate of Hysterectomy is between the age group of 40-49 years with an average age of 46.1 years. Uterine Leiomyomas are consistently the leading indication for Hysterectomy. More than 70% of hysterectomies are performed for benign surgical indications, including menorrhagia, fibroids, pelvic pain and prolapsed uterus. Traditionally this has been done via abdominal or vaginal routes. Increasingly hysterectomies are undertaken using minimal access techniques.[1,2]

Routes for hysterectomy include abdominal, vaginal, laparoscopic, or combined approaches. Traditional abdominal hysterectomy (AH) is one of the most common gynaecological surgical procedures in the treatment of benign gynaecological diseases. However, AH as the most invasive procedure, is associated with some limitations such as abdominal trauma, intraoperative and postoperative complications, and slow postoperative recovery.[3] Compared with traditional open gynaecological surgeries, minimally invasive gynaecological surgery provides less postoperative pain, more rapid recovery, and shorter hospital stay.[4] Vaginal hysterectomy (VH) is the method of choice for removal of the uterus.

More than 70% of hysterectomies are performed for benign surgical indications, including fibroids (33%), uterine prolapse (28%), menorrhagia (21%), and pelvic pain (3%).[5] The first total laparoscopic hysterectomy was reported in 1989; this procedure has been associated with shorter hospital stay, faster recovery, and fewer postoperative infections compared with abdominal hysterectomy.[6] Advanced laparoscopic procedures are increasingly being utilized in gynaecologic surgery; however, the abdominal hysterectomy technique is still performed in over 80% of operations.[7,8]

Since the time Laparoscopic hysterectomy first reported in 1989, the number of hysterectomies by this route is on the rising trend. Total laparoscopic hysterectomy facilitates better anatomical views, allows performance of concomitant surgery, and is suitable for larger uteri and those with little or no descent, which may prove difficult to be removed vaginally.

Compared to laparoscopic hysterectomy, there is a slightly higher risk of complications with that of abdominal hysterectomy. The procedural costs of laparoscopic hysterectomy are greater than abdominal hysterectomy. Most studies show less post-operative pain, shorter hospital stay and faster postoperative recovery with laparoscopic hysterectomy than with abdominal hysterectomy. There is evidence that pain scores and physical functioning was significantly better for women who underwent laparoscopic versus abdominal hysterectomy.

METHODS

A prospective study on 476 hysterectomies operated between January 2012 to July 2014 was carried out at teaching and Gen. Hosp. attached to M R Medical College, Gulbarga, Karnataka, India.

All the patients attending Gynecology outpatient department with symptoms were assessed with history and clinical examination by the Consultant Gynecologist and investigated. Those requiring hysterectomy were analysed by the Consultants for the approach depending on the indication for the surgery, nature of the disease and patient characteristics.

All patients were investigated with following tests:

- Complete blood count
- Blood grouping and Rh typing
- Blood urea, Serum creatinine
- Blood sugar
- Liver function tests
- Electrocardiogram, Chest x-Ray
- Ultrasonogram of whole abdomen and/ or transvaginal ultrasound.
- HIV and HBsAg tests
- Coagulation profile (PT, PTT, INR)
- Urine routine
- Pap smear

After Pre-anaesthetic clearance, cases were operated. Total Laparoscopic Hysterectomy done under general anesthesia and Total Abdominal Hysterectomy under regional or general anesthesia.

Intra operative and post-operative complications up to 48 hrs of surgery, duration of surgery, post-operative pain scores by visual analogue scale, amount of blood loss and length of hospital stay were noted.

RESULTS

Table 1: Parity distribution of hysterectomy patient.

Parity	No. of cases	Percentage
Nullipara	12	2.4%
Para I	73	15.5%
Para II	217	45.9%
>Para III	171	36.2%

Among total study subjects, 2.4% were nulliparous. Para I subjects constituted 15.5%, Para II subjects constituted 45.9%, and more than Para III subjects constituted 36.2%.

Table 2: Age distribution of hysterectomy patient.

Age	No. of cases	Percentage
< 25yrs	02	0.4%
26 to 35 yrs	16	3.4%
36to 45 yrs	125	26.4%
>46 yrs	330	69.8%

In this study, highest number of patients were in the age group of more than 46 years (69.8%) followed by 36 – 45 years (26.4%), 26 – 35 years (3.4%) and less than 25 years (0.4%).

Table 3: Route of hysterectomy.

Route of hysterectomy	Present study No. of hysterectomy Percentage
Abdominal	253 53%
Vaginal	224 47%

Among total study subjects, 53% of them underwent abdominal hysterectomy and remaining 47% underwent vaginal hysterectomy.

Table 4: Indication of hysterectomies.

Clinical Diagnosis	No. of cases	Percentage
Leiomyoma	109	22.9%
Early carcinoma	10	2.1%
Menstrual disorders	123	25.8%
PID/Cervicitis	59	12.3%
Endometriosis	03	0.6%
Pregnancy related Complication	19	4.0%
Uterine prolapsed	140	29.4%
Other causes	13	2.9%

The most common indication for hysterectomy was prolapsed uterus (29.4%) followed by menstrual disorders (25.8%), leiomyoma (22.9%), and PID (12.3%).

Table 5: Pre-operative diagnosis verified by pathology.

Clinical diagnosis	No. of cases	Present study N (%)	
Leiomyoma	109	85	78%
Early carcinoma	10	06	60%
Menstrual disorders	123	76	61.8%
PID/Cervicitis	59	29	49.1%
Endometriosis	03	02	66.6%
Pregnancy related complication	19	18	94.7%

Among leiomyoma cases, 85% were confirmed by histopathological diagnosis. Among early carcinoma cases, 60% were confirmed by histopathological diagnosis. Among menstrual disorder cases, 61.8% were confirmed by histopathological diagnosis. Among PID cases, 49.1% were confirmed by histopathological diagnosis.

Table 6: Associated surgeries with hysterectomy.

Associated surgeries	Cases	Percentage
Oophorectomy	80	16.8%
Vaginal repair	140	29.4%
Urinary incontinence	25	5.25%
Incidental appendectomy	7	1.4%

The most common associated surgery was vaginal repair (29.4%) followed by oophorectomy (16.8%), urinary incontinence (5.25%) and incidental appendectomy (1.4%).

Table 7: Morbidity with hysterectomy.

Cases		No. of cases	Percentage
Morbidity		26	5.5%
Medical	Jaundice	01	02%
	Enteric	01	0.2%
	Malaria	03	0.6%
	Bleeding Intra-op	09	1.9%
Surgical	Bleeding Post – op	11	2.3%
	Infection – urinary	20	4.3%
	Infection – vault	07	1.5%

The common medical morbidity was jaundice and malaria. The surgical morbidity was bleeding and infection.

DISCUSSION

Recently, there were several studies in which intraoperative blood loss, operating times, and the rate of complications compared between these operations. The laparoscopic approach is an acceptable treatment modality in the current gynecologic practice.[9] Jahan et al performed a prospective comparative study on the efficiency and outcome of LAVH, TAH, and vaginal hysterectomy on 750 patients. Their results showed that LAVH and vaginal hysterectomy were more beneficial to patients because of less estimated blood loss, less analgesia use, less intraoperative and postoperative complication rates, less postoperative pain, more rapid recovery, and shorter hospital stays.[10]

In the present study, among total study subjects, 53% of them underwent abdominal hysterectomy and remaining 47% underwent vaginal hysterectomy

A similar result was earlier reported. However, Malur et al, in a randomized population, demonstrated comparable operative time between LAVH and TAH [11]. All previous studies showed significantly shorter hospitalization with laparoscopy compared with laparotomy. Similar results were demonstrated in other European studies. However, the duration of hospitalization in North American studies is usually shorter compared with European, may be because of the different health insurance status. According to previous study it has been reported that intraoperative and perioperative blood loss is lesser in the LAVH group compared to the abdominal surgery. In agreement with this study we found that intraoperative blood loss in the TLH group same as in the TAH group. The relatively lower rate of complications encountered in the present study was due to the small number of patients. Some studies have demonstrated that a low complication rate can be achieved by extensive training in laparoscopy and optimizing of the technique.[12] Johnson et al. published a meta-analysis of prospective randomized trials and stated that the rate of urinary complications was higher with laparoscopy. The complication rate for TLH has gradually been decreased with increased surgical experience at our institute, thus, less experienced gynecologic surgeons may experience higher complications when attempting TLH. Regarding a previous study, there is no clear evidence on the superiority of the hysterectomy methods one to another.[13]

CONCLUSION

Most cases were multipara. Commonest indication being Leiomyoma 68.3% justified hysterectomy. If ultimately hysterectomy is required, patient care can be improved b operating vaginally, laproscopillay and these decreasing numbers of laparotomies

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