

A Two Years Audit of Complication of Total Abdominal Hysterectomy at Dinajpur Medical College Hospital

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Total abdominal hysterectomy is one of the most common major surgical procedures performed in Gynaecology. Our objective was to determine the operative and postoperative complications of this procedure with an aim to improve management at our unit. This study was conducted in the Department of Gynaecology, Dinajpur Medical College Hospital from January 2002 to December 2003. Indications, complications and mortality associated with hysterectomy were assessed. Total number of hysterectomies performed in two years in our unit was 290. Major indications for hysterectomies were dysfunctional uterine bleeding (32.8%) and fibroid uterus, (25.0%) followed by chronic cervicitis (17.9%). Complications developed in 14.8% out of these. The frequency of complications was related with indication for hysterectomy, age, parity and history of associated serious illness. It was found that frequency of complications in fibroid uterus was higher (4.2%) than that for dysfunctional uterine bleeding (DUB) (3.0%). There was no pre-operative death associated with hysterectomy. In order to reduce these proper selection, pre-operative preparation and less invasive alternative treatment for the commonest indications of hysterectomy (that is fibroids and DUB) for example various methods of endometrial ablation or resections can be employed.

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Introduction

Hysterectomy is the most common major gynaecological operation in the world. Approximately 600,000 hysterectomies are performed each year in United States. After Ceasarean section, hysterectomy is the second most frequently performed major surgical procedure in women of reproductive age in United States.¹ An estimated 20 million U.S women have had a hysterectomy.^{2,3} More than 70,000 Hysterectomis performed annually is England alone.⁴ The chance of having hysterectomy by the age of 55 women in United Kingdom has been, estimated as 1 in 5.⁵ All large scale surveys of hysterectomy practice have shown that 70-80% of hysterectomies are performed by the abdominal approach.⁶ Approximately 20% of women have had the procedure by the age of 60 year, about 40% of these for dysfunctional uterine bleeding (DUB) with no gynaecological pathology.⁷ The aim of this study was to find out the frequency of

hysterectomies and complications associated with it, and to recommend plan to reduce complications.

Methods

This study was carried out at Gynaecology Unit-2 of Dinajpur Medical College Hospital from January 2002 to December 2003. Patients received in outdoor Department with fibroids, DUB, endometriosis, ademomyosis,

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pelvic mass and chronic pelvic inflammatory disease (PID) were admitted in the indoor department for hysterectomy. Preoperative information included relevant past medical history and information regarding previous gynaecological management. Baseline investigations included blood grouping with Rh factor, Hemoglobin estimation, urine routine examination, blood sugar, X-ray chest, ECG and an abdominopelvic ultrasound were done. Majority of the patients were found to be anaemic, correction of anemia with blood transfusions and haematinics prior to surgery was done. Any other associated diseases e.g. infections, diabetes mellitus, hypertension etc. were treated, in collaboration with medical team. Operative documents were preserved and patients were discharged between 5th-7th post operative day, after receiving the histopathology report. Out patient follow up were done fortnightly for six weeks.

We investigated the operative and post operative complications and its relation with indication for hysterectomy, age, parity, general physical health prior to surgery, use of prophylactic preoperative and postoperative antibiotics. Complications encountered intra-operatively were haemorrhage, damage of surrounding structures.

Antibiotic coverage was given to all patients (100%) prophylactic single pre-operative dose of antibiotic half an hour prior to surgery definitely decreased the incidence of infections.

Post-operative complications were categorized into early (during the stay in hospital and late (after discharge). Early post operative complications included anemia, wound infections, haematoma formation, urinary tract infection (UTI), chest infection, deep vein thrombosis (DVT), pulmonary

embolism, secondary haemorrhage myocardial infarction, bladder damage, fistula formation and death. Late complications included, secondary haemorrhage, withdrawal symptoms in patients under going oophorectomy included hot flushes, anxiety, depression and mood change.

Results

A total of 290 hysterectomies were carried out in a period of two years at Gynaecology Unit-2 of Dinajpur Medical College Hospital. All of these hysterectomies were carried out by first author. The results of this study are summarized in tables I - IV.

Visceral damage included damage to intestines and bladder injury which were detected during surgery and repaired mostly in cases with endometriosis pelvic inflammatory disease or previous pelvic surgery in which dense adhesions were present. Highest frequency of post operative complications was infections either related to wound (6.2%) urinary tract infection or chest infection (3.4%). Four patients died (mortality rate of 1.4%). One patient died in the operation theatre during the recovery phase of anaesthesia (cardiac arrest, 0.3%) remaining 3 died in the post operative period causes being septicemia (0.7%) and myocardial infarction (0.3%)

DVT was not found in this study. Re-laparotomy was done in one case due to internal haemorrhage. Frequency of withdrawal symptoms in cases with removal of ovaries was almost 80% and mostly needed psychological support and hormone replacement therapy in carefully selected cases.

Table I: Distribution of patients according to age groups (n = 290)

Age Group	Cases (%)
20-29	8 (2.75%)
30-39	137 (46.24%)
40-49	125 (43.10%)
50-59	17 (5.86%)
>60	3 (1.03%)
All Age groups	n=290

Table II: Indications for hysterectomy (n=290)

Indications for Hysterectomy	Cases (%)
DUB	95 (32.75%)
Fibroid Uterus	73 (25.17%)
Endometriosis/ Adenomyosis	12 (4.13%)
Chronic cervicitis	58 (17.93%)
PID	41 (14.13%)
Others	11 (3.79%)

Table III: Complications of hysterectomy (n=290)

Complications	Cases (%)
Wound infections	18 (6.20%)
UTI/Chest infection	10 (3.44%)
Haematoma	5 (1.72%)
Deep Vein Thrombosis	8 (2.53%)
Internal haemorrhage	1 (.34%)
Secondary haemorrhage	7 (2.41%)
Bladder Injury	1(0.34%)
Intestinal Damage	1 (0.34%)
Total	43 (14.82%)

Table IV: Causes of mortality (n=290)

Mortality	Cases (%)
Cardiac Arrest	1 (0.34%)
Septicemia	2 (0.68%)
Myocardial Information	1 (0.34%)
Total Mortality	4 (1.37%)

Discussion

The present study was done in the Gynaecology department of the Dinajpur Medical College Hospital in a prospective manner. This study indicates that the highest frequency of hysterectomy was for DUB followed by fibroid uterus. Operative

complications were seen more commonly in case of fibroid uterus as compared to DUB. Haemorrhage being the major complication encountered in these cases as also indicated by other studies. In this study the rate of wound infections was 6.2%. It has been reported to occur 10.5% in other study.⁸

The frequency of visceral damage .68% corresponds to other reported studies on rate of visceral damage.⁹ Mortality rate of 1.4% in this study group was comparable to other large cohort studies which ranged from 0.5-1.6 per thousand.^{10, 11} To reduce the number of hysterectomy and associated complications less invasive alternative treatment method can be tried. Uterine leiomyoma, which is the most common uterine tumour, was the most frequent diagnosis associated with hysterectomy. The over all rate of hysterectomy attributable to uterine leiomyoma was gradually increased. More wide spread availability of ultrasound in obstetrician-gynaecologist clinics might has increased the diagnosis of uterine leiomyoma.¹² For leiomyoma thousands of women would wide have undergone the procedure of uterine artery embolization and have found the result to be worthy of comment.¹³ Monthly administration of Gn RH agonist significantly reduce the size of the uterine leiomyoma.¹⁴ Microwave endometrial ablation is an established treatment for DUB.¹⁵ Several second generation endometrial ablation treatments have been performed under local anaesthetic including thermal balloon, monopolar diathermy and hydro-thermal ablation techniques.

The higher incidence of infection rate is caused by contamination from vagina.¹⁶ To lessen the spill of vaginal bacteria into operative site a vaginal douche and thorough bath with hexachlorophene or povidine-iodine, the evening before surgery and thorough cleaning of vagina in the operation room is recommended.¹⁷

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