A TWO YEARS AUDIT OF COMPLICATIONS OF HYSTERECTOMY AT AYUB TEACHING HOSPITAL ABBOTTABAD

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Background: 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. **Methods:** This study was conducted in the Department of Gynaecology, Ayub Teaching Hospital, Abbottabad form January 2002 to December 2003. Indications, complications and mortality associated with hysterectomy were assessed. **Results:** Total number of hysterectomies performed in two years at our unit was 316. Major Indications for hysterectomies were dysfunctional uterine bleeding (38%) and fibroid uterus, (27%) followed by prolapse (22%). Complications developed in 14% 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 (1.2%) than that for Dysfunctional uterine bleeding (DUB) (1.0%). There was no operative death, while 5 (1.5%) patients died within 2 weeks of surgery. **Conclusion:** We have a fairly high frequency of morbidity and mortality 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.

Keywords: Hysterectomy, Complications, morbidity, dysfunctional uterine bleeding

INTRODUCTION

Hysterectomy is currently the most common major elective procedure in the world, with more than 70,000 Hysterectomies performed annually in England alone[1] and even higher proportions in USA. There have been no recent population based studies in Pakistan providing estimates of Hysterectomy prevalence, although there has always been concern about the high rates of this procedure. Approximately 20% of women have had the procedure by the age of 60 years, about 40% of these for Dysfunctional uterine bleeding (DUB) with no gynecological pathology.[2] 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.

MATERIAL AND METHODS

This study was carried out at Gynaecology unit'C' of Ayub Teaching Hospital Abbottabad form January 2002 to December 2003. Patients received in outdoor Department with Fibroids, DUB, endometriosus, Ademomyosis, Prolapse, pelvic mass and chronic Pelvic Inflammatory Disease (OID) were admitted in the indoor department for Hystrectomy. Preoperative information included

relevant past medical history and information regarding previous gynaecological management. Baseline investigations, included Blood Group to 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 disease eg infections, diabetes mellitus, hypertension etc. were treated, in collaboration with medical team. Operative information included the details of operative procedure, operative findings and complications. Post operative complications were documented and patients were discharged between 5^{th}-7^{th} post operative day, after receiving the histopathology report. Out patient follow-ups 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. Method of hysterectomy, expertise and grade of surgeon. Complications encountered intra-operatively were haemorrhage, damage ot 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 infaraction, bladder damage, fistula formation and death late complications included, secondary haemorrhage, withdrawal symptoms in patients under going oophorectomy included hotflushes, anxiety, depression and mood change.

RESULTS

A total of 316 hysterectomies were carried out in a period of two years at Gynae 'C' unit of Ayub teaching Hospital, Abbottabad. Out of these 278 (88%) were total abdominal hysterectomies while the rest (22%) were Vaginal hysterectomies. Out of these 60% of hysterectomies were carried out by consultants and 40% were done by Senior Medical Officers under supervision. The results of this study are summarized in tables 1-4.

Table-1: Distribution of patients according to age groups (n=316)

Age Group	Cases (%)
20-29	9 (2.84%)
30-39	125 (39.55%)
40-49	143 (45.25%)
50-59	22 (6.9%)
>60	60 (18.98%)
All Age groups	n=316

Table -2: Indications for hysterectomy (n=316)

Indications for Hysterectomy	Cases (%)
DUB	120 (38%)
Fibroid Uterus	81 (27%)
Endometriosis/ Adenomyosis	20 (6%)
Prolapse	71 (22%)
Pelvic mass	14 (4%)
Others	10 (3%)

Table-3: Complications of hysterectomy (n=316)

Complications	Cases (%)
Wound infection	13 (4.11%)
UTI/Chest infection	8 (2.53%)
Haematoma	4 (1.26%)
Deep Vein Thrombosis	8 (2.53%)
Pulmonary Embolism	4 (1.26%)
Secondary haemorrhage	3 (0.94%)
Bladder Injury	2 (0.62%)
Intestinal Damage	2 (0.62%)
Total	44 (13.92%)

The rate of complications was found to be higher in vaginal than abdominal procedure. 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 adhesion were present. Highest frequency of post operative complications was infections either related to wound (4%) urinary tract infection or chest infection (2.5%). 5 patients died (a mortality rate of 15.8 per thousand). 1 died in the operation theatre during the recovery phase of Anaesthesia (cardiac assert) (0.3) remaining 4 died in the post operative period causes being pulmonary (0.6) embolism, septicemia (0.3) and myocardial infaraction (0.3)

Table-4: Causes of mortality (n=316)

Mortality	Cases (%)
Cardiac Arrest	1 (0.31 %)
Pulmonary embolism	2 (0.62%)
Septicemia	1 (0.31%)
Myocardial Infarction	1 (0.31%)
Total Mortality	5 (1.5%)

DVT was found to be more common in anaemic obese or reluctant to ambulate patients. 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.

DISCUSSION

This study indicates that the highest frequency of hystrectomy was for DUB followed by fibroid uterus. Operative complications were seen more commonly in cases of fibroid uterus as compared to DUB. Haemorrhage being the major complication encountered in these cases as also indicated by other studies.

The frequency of visceral damage (0.5-2%) corresponds to other reported studies on rate of visceral damage.[4] Mortality rate of 1.6% in our study group was comparable to other large cohort studies which ranged from 0.5 - 1.6 per thousand.[5,6] To reduce the number of hysterectomy and associated complications less invasive alternate treatment methods can be tried. For fibroid uterus thousands of women world wide have undergone the procedure of uterine artery artery embolization and have found the result to be worthy of comment.[8] Monthly administration of GnRH agonist significantly reduces the size of uterine leiomyoma.[9] GnRH agonist therapy induces the reduction of gonadal oestrogen, growth factors and blood flow, which are required for the growth of fibroid.

There is now an increasing number of non surgical alternatives to hysterectomy particularly for abnormal uterine bleeding and since this is the indication for hysterectomy in at least one third of cases recent treatment advances could bring the Hystrectomy rates down still further.[10]

Microwave indometrial ablation is an established treatment for DUB.[11] Several second generation endometrial ablation treatments have been performed under local anaesthetic including thermal balloon, monopolar diathermy and hydro-thermal ablation techniques.

Gynaecologists are also again beginning to favour subtotal hysterectomy with its less complication rate and less risk of impaired sexual function.[13] Particularly when combined with the removal of transformation zone which minimizes the risk of cervical cancer. The higher incidence of infection rate is caused by contamination from vagina.[14] 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.[15]

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