ORIGINAL ARTICLE

Audit of Gynaecological Hysterectomies

TAYYABA MAJEED, RABIA ADNAN, ZAHID MAHMOOD, *HAMIS MAHMOOD*

ABSTRACT

Aim: To audit indications, complications and histopathological diagnosis of gynaecological hysterectomies performed at Lady Aitchison Hospital Lahore.

Study Design Retrospective Study

Place and duration of study: Department of Obstetrics and Gynaecology Unit 4, Lady Aitchison Hospital, Lahore from March 1, 2012 to March 31, 2013.

Methodology: All patients who underwent hysterectomies during the study period for gynaecological indications were included. Data from these cases was extracted on a specially designed Performa which included fields for patient's age, parity, presenting complaints, indications, route, type of anaesthesia, operative complications, duration of hospital stay and histopathological findings. The histopathological reports were collected from the department of Pathology. The data was analysed by using percentages.

Results: A total of 150 hysterectomies were performed during the study period. The ratio of abdominal to vaginal hysterectomies was 2:1. Mean age of the patient was 45 years and the parity ranged from 0-10. Most common presenting complaint was menorrhagia (40.6%)followed by genitalprolapsed (36%). Most of the complaints were benign. Most common preoperative diagnosis was fibroid uterus in 53% followed by genital prolapse in 40%. The most common histopathological diagnosis made was that of fibroid in 48%. The commonest incidental findings in hysterectomy specimens was chronic cervicitis. Most of hysterectomies were performed under spinal and combined spinal epidural anaesthesia withsmooth postoperative recovery.

Conclusions: An yearly audit should be carried out in every institute to analyse the pattern of indications and lesions found on histopathological examination. The clinical indication for hysterectomy and histopathological outcome are comparable in over 90% of the cases.

Keywords: Abdominal hysterectomy, vaginal hysterectomy, operative complications,

INTRODUCTION

Hysterectomy is the commonest major gynaecological surgical procedure with millions performed on women in the peri and post menopausal period [1]. It is usually performed to relieve symptoms such as abnormal vaginal bleeding and pelvic pain and is often also performed as definite management for gynaecological diseases such as fibroids endometriosis, adenomyosis and uterovaginal prolapse[2].

Abdominal hysterectomy involves removal of uterus through an incision on the lower abdomen. Vaginal hysterectomy involves removal of uterus through vagina. The rate of hysterectomy varies between 6.1 to 8.6 per 1000 women of all ages [3]. Hysterectomy was first performed in 1507 by Berengarious of Bolonga through vaginal route. But the credit for the first vaginal hysterectomy was given to Lagenback in 1813. The first Total Abdominal Hysterectomy and Bilateral salpingoopherectomy was done by Clay in 1844. Hysterectomy rate varies according to the geographic distribution, patient and physician related factors[4].

In Pakistan the rate of hysterectomy is quite high because it is the only option available if the patient is not responding to the medical treatment. However hysterectomy has major drawbacks and is associated with high morbidity and mortality[5].

Majority of the complications associated with gynaecological surgery is common to other surgical procedures and represent the complicated response of the body to the stresses imposed by the surgery. In addition there are other complications associated with specific operation itself. Because of the considerable advances in the surgical and anaesthetic techniques and postoperative care, surgery has become safer and operations are carried out on people who would have been previously considered unfit[6].

All large scale surveys of hysterectomy practice have shown that most of the hysterectomies are performed by the abdominal route[7]. Approximately 20% of the women have had the procedure by the

---

Department of Obstetrics & Gynaecology, Lady Aitchison Hospital/King Edward Medical University, Lahore
Correspondence to Dr. Tayyaba Majeed, Associate Professor

age of 60 years, about 40% of these for DUB with no gynaecological pathology[8]. Approximately 90% of the hysterectomies are performed for benign conditions such as fibroids causing AUB[9].

MATERIALS AND METHODS

This study was conducted in Department of Obs and Gynae unit 4, Lady Aitchison Hospital, Lahore from March 1st 2012 to March 31st 2013. Record from history sheets and files of the patients admitted for hysterectomy was collected. Obstetrical hysterectomies were excluded from the study. Information was gathered regarding age, parity, clinical features (presenting complaints), menstrual history and preoperative diagnosis / indications of hysterectomy. Preexisting medical illnesses like diabetes and hypertension were treated preoperatively. Baseline investigations including CBC, Blood sugar level, urine complete examination, Blood group, ECG, X ray Chest, Abdominopelvic Ultrasound and viral serology for Hepatitis B and C done. Haemoglobin was built up wherever required by blood transfusions and haematinics, Prophylactic antibiotics were given to all patients.

The patients were discharged between 5th and 7th postoperative day after collecting the reports from the histopathology department and their diagnosis noted. The data was analyzed using percentages.

RESULTS

A total of 150 gynaecological hysterectomies were performed in the study period. Out of these 96 were abdominal and 54 were vaginal hysterectomies. The mean age was 45 years (Range 14-70). The mean parity was 5.These results are illustrated by the following tables 1, 2.

Table 1: Age distribution

Age (years)	n	%age
<30	4	2.67
30-35	4	2.67
36-40	17	11.33
41-45	39	26.00
46-50	44	29.33
51-55	12	8.00
56-60	19	12.67
61-65	6	4.00
66-70	5	3.33

Table 2: Parity wise distribution

Parity	n	%Age
Nalliparous	6	5.33
P1-P3	16	10.67
P4-P6	96	64.00
>P6	30	20.00

Anaemia was found to be in 40% patients requiring at least one blood transfusion. The most common medical complication was hypertension seen in 33% of the patients. The most common presenting complaint was menorrhagia followed by genital prolapse as shown in Table 3. The preop diagnosis of fibroid was seen in 35.3% of the patients and genital prolapse in 26.67% and DUB in 16% patients. Adenomyosis was suspected in 10% patients and ovarian cyst was the indication in 6% pts (Table 4)

Table 3: Presenting complaint

Presenting complaint	n	%age
Menorrhagia	61	40.66
Genital Prolapse	54	36.00
Mass abdomen	22	14.67
Pain lower abdomen	7	4.67
Post Menopausal Bleeding	3	2.00
Mentally retarded	2	1.33
Blind	1	0.67

Table 4: Indications for Hysterectomy

Indications	n	%age
Fibroid Uterus	53	35.33
2nd degree UV Prolapse	40	26.67
DUB	24	16.00
Adenomyosis	15	10.00
Ovarian Cyst	9	6.00
Post Menopausal Bleeding	3	2.00
Chronic Uterine Inversion	1	0.67
Endometrial Polyp	2	1.33
Mentally retarded	2	1.33
Blind	1	0.67

The most common histopathological diagnosis was chronic cervicitis (85%)which was an incidental finding in most of the cases followed by fibroid in 32% of the cases.(Table 5) 58.55% of the hysterectomies were performed under regional anesthesia which was quite effective (Table 6).

Table 5: Histopathological lesions of Hysterectomy specimens

Histopathological findings	n	%age
Leiomyoma	48	32.00
Adenomyosis	19	12.67
Endometrial Hyperplasia	11	7.33
Endometrial Polyp	10	6.67
Endometrial Adenocarcinoma	1	0.67
Combined adenomyosis & fibroid	9	6.00
Chronic Endometritis	3	2.00
Unremarkable Pathology	49	32.67

Table 6: Anaesthesia for hysterectomy

Anaesthesia	n	%age
CSE	67	44.08
GA	63	41.45
Spinal	22	14.47

The incidence of various operative complications is shown in Table 7.

Table 7: Complications of hysterectomy

Complication	n	%age
Bladder Injury	3	2.00
Ureter Injury	0	0
Relaparotomy	0	0
Paralytic ileus	2	1.33
Burst abdomen	1	0.67
Rectus sheath hematoma	2	1.33
Wound infection	10	6.67
Vault infection	1	0.67

Average duration of hospital stay was 6.5 days.

DISCUSSION

Hysterectomy is the most common non- pregnancy related procedure performed on the women[10]. One in three women in the United States and one in five women in the United Kingdom have a hysterectomy by age 60 years; this is usually performed for benign conditions[11]. Highest hysterectomy rates are seen amongst the women who are less than 55 years old[12]. International hysterectomy rates vary being highest in the US and lowest in Norway and Sweden[12,13].

Population based studies providing estimates of hysterectomy prevalence are not available in Pakistan but there has always been conflict regarding its high rate. The reason for that it is the only surgical option available if the patient is not responding to medical treatment. Other surgical treatment options like ELA, TCRE, and UAE are widely practiced as conservative surgical treatment for benign gynaecological conditions in other countries but they are not available in our country[5].

Hysterectomy is performed for many indications. Included in these are many indications which may be related to quality of life. The most common presenting complaint in this study was menorrhagia followed by genital prolapse. Similar results were seen in terms of indications where fibroid and genital prolapse were the commonest. These results were also obtained by Leung et al[14].

Over a half of the women with menorrhagia have fibroid during their reproductive life. Other studies have also reported leiomyoma as the most common pathological lesion with the frequencies ranging from 25% to 48% in local studies[5,15,16]. Its incidence is 25.8% in Saudi Arabia, 48% in Nigeria and 8% in Sweden. Adenomyosis is the next common pathology with its incidence of 26% in India, 24.9% in Italy and 6% in West Indies[17].

In our study other common indications included dysfunctional uterine bleeding and adenomyosis.

The peak age for the hysterectomy in our study was the fifth decade and it has been observed in many other studies[18,19,20]. The average parity in our study was 5 with a range of 0-9. Our finding is comparable with the parity range reported by others[5,18].

The commonest surgical approach in this study was total abdominal hysterectomy with or without bilateral salpingoopherectomy followed by the vaginal route. This is the observation in most of the studies[5,18,19].

In the histopathological review of the specimens chronic cervicitis was the most common incidental finding, followed by uteri without unremarkable findings, fibroid uterus and adenomyosis. High percentage of uteri with unremarkable findings is due to the high prevalence of genital prolapse in this study. The patients were not excluded from the study because audit of all hysterectomies during the study period was done. Almost similar results were obtained by QamarUn Nisa et al and another study conducted in Lahore[21,5].

58.5% of the hysterectomies were performed under regional anesthesia (CSE and spinal). These results were different from those obtained by Yasmin T et al in Lahore. The reason could be patient preference, anesthetist's choice and patient characteristics.

In addition the incidence of operative complications like bladder injury, ureteric injury, relaparotomy, paralyticileus, rectus sheath haematoma and burst abdomen, wound and vault infection were similar to the studies done at various places[8,23].

CONCLUSION

In our set up the rate of hysterectomy is quite high. So it is the need of the hour to conduct a yearly audit of gynaecological hysterectomies in every teaching hospital to analyze the pattern of indications, complications and the histopathological lesions. Furthermore there is a need to practice the conservative options so as to bring down the rising rate of hysterectomies.

REFERENCES

1. Amarin V, Naji W, Quran F, Al Fayaz N. Indications and complications of Total Abdominal Hysterectomy for benign disease. JRMS 2012; 19(3):50-52.
2. Bren, Linda. Alternative tohysterectomy:new technologies, more options. FDA comsumer Rockville:2001; 6;23.
3. Al Kadri HM, Al burki HA, Saleh A. Short and Long term complications of Abdominal and Vaginal

Hystrectomy for disease. Saudi Med J. 2002;23(7): 806-15.
4. Vessey MP, Villard Mackintosh L, Mc Pherson K, Coutter A, Yeats D. the epidemiology of hysterectomy: findings in large cohort study. Br J Obstet Gynaecol 1992; 1992:99:402-7.
5. Qamar Un Nisa, Habib Ullah, Sheikh TA, Hemlata, Memon F, Memon Z. Professional Med J, 2011:18(1) 46-50.
6. Irum N, Ashraf M, Zaiba S, Majeed A. An analysis of complications and indications of hysterectomy between scarred and non scarred uterus. Ann Pak Inst Med Sci. 2012; 8 (3): 187-190.
7. Begum J, Taludker SI, Hossain MA. A two years audit of complications of Total Abdominal Hysterectomy at Dinajpur Medical College Hospital. Dinajpur Med Col J. 2008 ; 1(1):14-17.
8. Shanthini NF, Poomalar GK, Jayasree M, Bupathy A. Evaluation of complications of abdominal and vaginal hysterectomy. Int J Reprod Contracept Obstet Gynecol 2012;1(1):7-11.
9. Flory N, Bissonette F, Binik YM.Psychosocial effects of hysterectomy: Literature Review. Journal of Psychomatic Research. 2005; 59(3) :17-29
10. Falcone T, Walters M. Hysterectomy for benign disease. *Obstet Gynecol* 2008; 111(3): 753-767.
11. Merrill RM. Hysterectomy surveillance in the United States, 1997 through 2005. *Med Sci Monit* 2008; 14(1):24–31.
12. Jacobson G, Shaber R, Armstrong MA, Hung Y. Hysterectomy rates for benign indications. *Obstet Gynecol* 2006; 107(6):1278-1283.
13. Farquhar C, Steiner C. Hysterectomy rates in the United States 1990-1997. *Obstet Gynecol* 2002;99(2):229-34.
14. Leung PL, Tsang SW, Yuen PM.An audit on hysterectomy for benign diseases in public hospitals in Hong Kong. Hong Kong Med J, 2007:13(3) 187-93
15. Simi Fayyaz and Shameem S Majeed. Audit of gynaecological hysterectomies JPMI, 15(2): 208-12
16. Ahsan S, Naeem S, Ahsan A. A case note analysis of hysterectomies performed for non- neoplastic conditions. Liaquat National Hospital Karachi . J Pak Med Ass 2001;51(10) 346-9
17. The Internet Journal of Obstetrics and Gynaecology. TM ISSN 1528-8439. Hysterectomy.A clinicpathological correlation of 500 cases.
18. Samaila Modupeola OA, Adesiyun AG, et. al. Clinico-pathological assessment of Hysterectomies in Zaria Eur J Gen Med 2009; 6(3):150 – 153
19. M. Ikram et. al. Abdominal versus vaginal Hysterectomy; An audit Professional Med J Dec. 2008; 15 (4): 486 -491
20. Riffat Jaleel, Ayesha Khan, Nargis Soomro Clinicopathological study of abdominal hysterectomies Pak J Med Sci ,2009; 25 (4}: 630-634
21. Akhter S, Asif S, Roshan R. Adenomyosis: A study of 303 cases.JCPSP 1996; 6 (5): 260-1
22. Dandade D, Malinak L, Wheeler JM.Therapeutic gynaecologic procedures. Current Obstet Gynaecol Diag 2003;45: 856-77.
23. Tabassum R, Fariha S, Sabbar S, Hasnain F, Hanif F, Hanif R. Morbidity and postoperative recovery of hysterectomy cases. Journal of Surgery Pakistan 2010; 15:73-77.