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RESEARCH ARTICLE

REVIEW OF CLINICOPATHOLOGICAL SPECTRUM OF ELECTIVE GYNAECOLOGICAL HYSTERECTOMIES AT A TERTIARY CARE TEACHING HOSPITAL

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Abstract

Background: Hysterectomy is the most common gynaecological surgery performed worldwide. Menorrhagia and abnormal menstrual bleeding are the commonest indications for hysterectomy in peri and post menopausal period. Hysterectomy has psychosexual ramifications and associated with risk of complications. Clinical indications should be evaluated prior to surgery. Histopathological diagnosis and regular review of hysterectomies justify the surgical procedure and improves patient quality care. Objectives: To review clinico-pathological spectrum of elective gynaecological hysterectomies at a tertiary care teaching hospital. Methodology: This Cross-sectional study done in the Department of Obstetrics & Gynaecology NSCB Medical College Hospital, Jabalpur during a period of 1st June2012 - 30th November 2013. Study population: 374 women who underwent hysterectomies. Inclusion Criteria: Elective gynaecological hysterectomies Exclusion criteria: Obstetrical hysterectomies. Data Analysis: Data entry was done in Excel Sheet and frequency tables were generated. Study variables: Age, parity indications, routes, types ,complications, and histopathological diagnosis were included as variables. Results: Total of 374 women underwent hysterectomy. Abdominal route was preferred in 253(67.6%) cases, vaginal in 106(28.3%) and laproscopy in15(4%)cases. Mean age was 44..25±7 years and mean parity was 3. Menorrhagia was chief complaint in 228(60.1%) cases. Majority of indications were benign. The commonest indication was myoma in 131(35.02%) cases followed by prolapse 108(28.8%), dysfunctional uterine bleeding 47(12.5%) and ovarian lesions in 25(6.7%) cases. Overall complication rate was 41(10.9%) including two deaths. Commonest pathology identified on histology was myoma in 139(37.1%) cases. Commonest incidental finding was chronic cervicitis in 78(20.9%) cases and commonest combined pathology was leiomyoma with adenomyosis in 13(3.47n%) cases. In 56(14.9%) cases histopathology was grossly and microscopically normal. Conclusion: Hysterectomy still remains the effective treatment modality. Benign uterine lesions are commoner than their malignant counterparts. Being associated with risk of complications and psychosexual ramifications indications need to be carefully evaluated prior to surgical procedure. Histopathological findings provides correct and accurate diagnosis. Regular review helps in justifying the indications and improves patient quality care.

Keywords: Clinico-pathological spectrum, Hysterectomy, Indications, Review.

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INTRODUCTION

Hysterectomy is the most commonly performed major gynaecological surgery all over the world [1]. Removal of uterus through abdominal route is 'total abdominal hysterectomy' while through vaginal route is termed as 'vaginal hysterectomy'[2]. As compared to higher frequency of hysterectomy (10-20%) in other countries India reports a lower rate (4-6%). In India no national statistics for hysterectromy is available, however study conducted in northern Haryana reports its incidence 7 % among married women above 15 years of age[3]. Another study from Gujarat reports 7-8% among rural and 5% in urban women [4].

Irregular or abnormal bleeding is the most common complaint in perimenopausal and postmenopausal women which could be due to hormonal imbalance or may indicate myoma, polyps, dysfunctional uterine bleeding, adenomyosis, gynaecological malignancies. Hyesterectomy is a successful operation in terms of patient relief and patient satisfaction and provides definitive cure to many conditions involving uterus and adnaxae [5].

Improved hospital care, availability of blood transfusion, advanced anaesthesia and above all advnet of antibiotics has opened up new era and broadened the indications for hysterectomy with minimum post operative morbidity and mortality. However emergence of effective medical and conservative treatment for benign conditions in the uterus is now posing a question mark in the justification of hysterectomy[6]. Studies have reported bothersome psychosexual functions following hysterectomy[7]. Hysterectomy though a life saving procedure in certain types of cancer and acute uterine haemorrhage, it must never be done without proper indication. The indications risks and benefits should be weighted minutely before embarking on surgery.

Histopathological examination plays a major role in correct and accurate diagnosis which has a profound impact on the management of patients. It carries ethical, legal, diagnostic and therapeutic significance. Importance of it is specially seen in patients of genital cancer where adjuvant treatment depends upon grade and extent of invasion of the disease.[7]

Regular review of hysterectomies provide effective means of quality assurance and appropriateness of surgery.

We therefore undertook this study with an aim to review the clinic-pathological spectrum of hysterectomies at a tertiary care teaching hospital.

MATERIAL AND METHODS

Present prospective study was carried out in the department of Obstetrics & Gynaecology from June 2012 to November 2013 at Government Medical College Hospital Jabalpur MP. Women who underwent hysterectomy formed the study group. After approval from institutional ethical review board women were enrolled. Obstetric hysterectomies were excluded from the study. Evaluation was done in terms of age, parity, clinical presentation, preoperative diagnosis, route, type of surgery, complications and histopathological diagnosis. Clinical indications were correlated with histopathological diagnosis. Patients were discharged between $5^{\text{th}}-7^{\text{th}}$ and followed up till six weeks. Data were analysed by using percentages.

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RESULTS

Out of 1470 gynaecological admissions 374(25.4%) hysterectomies were performed during study period. There were 253(67.6%) total abdominal hysterectomies, 106(28.3%) vaginal and 15(4.01%) laproscopic. 217(58.02%) cases were in age group 41-50 years. **Table 1** and 221(59.1%) had parity between 1 and 3. **Table 2** 280 (74.9\%) cases belonged to rural areas. Menorrhagia was the commonest complaint in 228(60.9\%) cases, followed by utero vaginal prolapse in 108(28.9%). **Table 3** Most of the indications were benign 368(98.4%). Commonest preoperative diagnosis was myoma in 131935.025), prolapse in 108(28.9%), dysfunctional uterine bleeding in 47(12.6%), ovarian cyst and tumor in 25 (6.7%) and adenomyosis in 13 (3.5%). **Table 4** Commonest type was total abdominal hysterectomy in 163(43.6%).

The overall complication rate was 41(10.96%). The intraoperative complications were 3(0.8%) cases of haemorrhage with blood loss of more than 1000ml requiring multiple blood transfusion peroperatively, one bladder and ureter injury. There were 2(0.53%) mortalities. **Table 4**

Histopathological findings documented more than one pathology in many specimens. Myoma was the commonest pathology in 139(37.1%) followed by adenomyosis in 34(9.09%), ovarian cyst and tumor in 26(6.9%) cases and dysfunctional uterine bleeding in 23(6.1%) cases. Carcinoma endometrium and cervix confirmed in 3 cases each (0.8%). Chronic cervicitis was reported in 78(20.9%) cases which was incidental finding in most of the cases. Most common combined pathology identified was fibroid with adenomyosis in 13(3.5%). 47 cases of dysfunctional uterine bleeding turned out to be myoma[15] and adenomyosis [9]. 55(14.7%) cases had normal histopathological finding. These cases were utero vaginal prolapse and dysfunctional uterine bleeding. 259(69.2%) had an average hospital stay of 7 days. **Table 5**

Age (years)	Number of Cases	Percentage
<20	1	0.26
21-30	6	1.6
31-40	102	27.27
41-50	217	58.02
51-60	41	10.96
>60	7	1.87

Table 1	Age	wise	distribution	(n=374)
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Table 2 Parity	wise distribution(n=374))

Parity	Number of Cases	Percentage
Nulliparous	6	1.6
P 1-3	221	59
P 4-6	125	33.4
P >6	22	5.8



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Table 3 Presenting complaints(n=374)

Clinical presentation	Number of Cases	Percentage
Menstrual irregularity/menorrhagia	228	60.9
Something coming out of vagina	108	28.8
Abdominal pain/discharge per vagina	19	5.08
Abdominal mass	11	2.9
Post coital bleeding	5	1.33
Post menopausal bleeding	3	0.8

Table 4 Indications(n=374)

Indications	Number of Cases	Percentage
Leiomyoma	131	35.02
Prolapse	108	28.9
DUB	47	12.57
Chronic pelvic inflammatory disease	32	8.6
Ovarian cyst/tumor	25	6.7
Adenomyosis	13	3.5
Cervical dyaplasia	9	2.4
Carcinoma endometrium	3	0.80
Carcinoma cervix	3	0.80
Cervical polyp	2	0.27

Table 5 : Complications (n=374)

Complications Intraoperative	Number	Percentage
Haemorrhage	3	0.8
Bladder injury	1	1.8
Ureteric injury	1	1.8
Peroperative Fever	13	3.5
Wound infections/gaping	9	2.4
Urinary tract infections	7	1.9
Chest infections	4	1.06
VVF	1	1.8
Mortality	2	0.53

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Table 6: Histopathological diagnosis(n=374)			
Histopathological diagnosis	Ν	Percentage	
Leiomyoma	139	37.7	
Chronic cervicitis	78	20.9	
Adenomyosis	34	9.09	
Atrophic endometrium	33	8.82	
Simple/proliferative/secretory/hyperplastic endometrium	23	5.61	
ovarian cyst/tumor	26	6.7	
Endometrial polyp	8	2.14	
Carcinoma endometrium	3	0.8	
Cervical intraepithelial neoplasia	3	0.8	
Carcinoma cervix	3	0.8	
Cervical polyp	2	0.53	
Combined leiomyma & adenomyosis	13	3.5	
Endometrial hyperplasia& adenomyosis	6	1.6	

DISCUSSION

In our institution during study period 374 elective gynaecological hysterectomies were performed. Most common route was abdominal(67.1%) followed by vaginal(28.9%) and laproscopic(4%) which is in accordance with study by Deeksha P, Kirti S et al. Same observations also see in study from UK[6,10].

The age range in our study was 15-71 years. Maximum cases were between 41-50 years with a mean of 44.25 ± 7.41 years which is similar to that reported in other studies[9]. One rare case of teen age (15 yrs) underwent hysterectomy for recurrent hematocolpos. She was twice unsuccessfully operated for hematocolpos elsewhere. Parity range from 0-7 with an average of 3. This is in accordance with study reported by Le who found mean parity of 3.1[11]. 280(74.9%) cases belonged to rural area[12].

Commonest complaint in our study was menstrual disturbance or menorrhagia(60.9%) followed by something coming out vagina(28.9%) which is similar to study observed by Tahira Y et al.[12] Majority of indications were benign(96.2%). Uterine myoma (33.2%) was the commonest indication for hysterectomy in our study followed by prolpase (28.9%) and dysfunctional uterine bleeding(12.6%). This is consistent with studies.[9,14,15]

Commonest type was total abdominal hysterectomy in 163 (43.6%) followed by total abdominal hysterectomy with bilateral salpingoophorectomy in 90 (24.06%). There were 4 (1.07%) subtotal and 3(0.8%) radical hysterectomy. This was in accordance with other studies. Subtotal hysterectomy was done for difficult tubo-ovarian mass, pelvic endometriosis and in two case there was severe haemorrhage. Radical hysterectomy was done in carcinoma cervix stage1B and 2A.[12,16].

Hysterectomy associated mortality rate is estimated to be 0.4% and the rate of severe complications approximates 3%.[17] Overall complication rate in our study was 10.9%, with abdominal approach (10.4%), vaginal(0.53%) and with laproscopic 1(0.3%). There were 3 cases of severe haemorrhage intra operative with loss of more than 1000

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ml blood. Two vaginal hysterectomies were converted to abdominal route due to severe haemorrhage and dense adhesions (6,13). Ureter injury encountered in laproscopic route.[18]. There were 2 (0.53%) mortalities during postoperative period, one due to uremia (malignant ovarian tumor) and other was carcinoma cervix.

On reviewing histopathological reports most common diagnosis found in our study was leiomyoma(37.1%), followed by adenomyosis (9.1%) and ovarian lesions (6.7%) which is in agreement to the study by Sobande A A et al.[19]. Incidence of myoma is 25.8% in Saudi Arabia, 78% in USA, 48% in Nigeria and 8% in Sweden. This suggests that there are geographical and racial influences on prevalence of myomas. Adenomyosis in our study, probably remained overdiagnosed as myomas[16]. Chronic cervicitis(21.4%) was the commonest incidental finding[13]. Out of ten suspected malignant ovarian only three confirmed as malignant. Many specimens showed combined pathology commonest being myoma with fibroid (3.5%). Same reported in study [16,19]. Only few studies have shown relationship of preoperative diagnosis with histopathological diagnosis. In our study preoperative diagnosis was confirmed in myoma(98%), ovarian lesions (99%) and malignances(100%) which is consistent with Lee N C et al (20). 56(14.7 %) cases showed no remarkable pathology on histopathological examination. These were the cases of dysfunctional uterine bleeding(5.6%) and prolapse (8.82%). Average hospital stay was 7 days in 259 (69.2%) cases[13].

CONCLUSION

Hysterectomy stills remains the widely used treatment modality inspite of available alternative and conservative options. In our study most common pathology identified was myoma. Majorit of preoperative diagnosis was confirmed on histopathological examination. Benign lesions are commoner than their malignant counterparts. Higher hysterectomy rate in our institution can be justified that majority of women were from rural areas and low socio economic status it caters These women usually seek medical help late and then the hysterectomy remains the only optionc. Hysterectiomy was justified in majority of cases however we assume that 23 cases of dysfunctional uterine bleeding without any significant pathology could have managed conservatively.

Hysterectomy though improve quality of life and a being a life saving procedure, is associated with psychosexual ramifications and severe complications. Hence every surgical specimen mandates histopathologcal examination for final diagnosis. Regular review of preoperative diagnosis and histopathological reports provides efficient means of quality assurance and appropriateness of surgery.

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REFERENCES

- 1. Vessey MP, Villard-Mackintosh L, McPherson K, Coulter A, Yeats D. The epidemiology of hysterectomy: findings in a large cohort study. Br J Obstet Gynecol. 1992; 99:402-7.
- 2. Clayton RD, Hysterectomy. Best practice and research. Clinical Obstet Gynecol 2006; 20:73-87.

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E-ISSN:2320-3137

- 3. Singh A, and Arora AK. Why hysterectomy rates are lower in India. Indian Journal of Community Medicine. 2008;33(3):196-197.
- 4. Desai S, Sinha T and Mahal A. Prevalence of hysterectomies among rural and urban women with and without health insutrance in Gujarat India. Reproductive health Matters. 2011;19(37):42-51.
- 5. Jaleel R, Khan A,Soomro N. Clinicopathological study of abdominal hysterectomies.Pak J Med Sci 2009;25(4):630-34.
- 6. Deeksha P, Kirti S, Jayaram N et al. An audit of Indications, Complications and Justification of Hysterectomies . Int. Jr. of Reproductive Medicine. 2014;2014: 6 pages: ID 279273.
- 7. K. McPherson, A. Herbert, Judge et al., Psychosexual health 5 years after hysterectomy: population-based comparison with endometrial ablation for dysfunctional uterine bleeding, Health Expectations. 2005;8(3);234-243.
- Thompson JD. Hysterectomy. In: Thompson JD, Rock JA, eds. Telinde's Operative Gynecology.7th edition. JB Lippincott Company Philadelphia,1992.663-738
- 9. Qamar-ur-Nisa et al. Hyserectomies- An audit at a tertiary care hospital. Professional Med J 2011;(1): 45-50.
- 10. Mukhopadhya N. and I.Manyonda, The hysterectomy story in the United Kingdom, Journal of Mid-Life Health. 2013;4(1): 40-41,
- 11. Lee NC, Dicker RC. Rubin G, Oray HW. Confirmation of the preoperative diagnosis for hysterectomy. Am J Obstet Gynecol 1984;150(3)283-287.
- 12. Zaman S, Begum A. A Hysterectomies at a rural medical college of Assam: A retrospective study. Journal of Obstetrics & Gynaecology Berpeta.2014;1(2):85-9.
- 13. Tahira Y Saima Javed et al. Audit of gynaecological Hyesterectomies. Pakistan J of Medical and Health Science. 2011;5(3):July-Sept.
- 14. Broder M S, Kanouse DE, Mittman BS, and Bernstein SJ. The appropriateness of recommendations for hysterectomy, Obstetrics and Gynecolgy. 2000; 95(2):199-205.
- 15. Leung PL, Tsang SW and Yeun PM. An Audit on hysteresctomy for benign diseases in public hospitals in Hong Kong. Hong Kong Medical Journal. 2007;13(3):187-193.
- 16. Sobande AA, Eskandar M, Archibong EI, Damole IO. Elective hysterectomy: a clinic-pathological review from Abha catchment area of Saudi Arabia. West Afr J Med 2005;25:31-35.
- 17. McPherson K, Metcalfe N, Lethaby S et al. Severe complications of hysterectomy: the VALUE study. BJOG 2004;111:688-694.
- 18. Tanaka Y, Asada H, Kuji N, et al. Ureteral catheter placement for prevention of ureteral injury during laproscopic hysterectomy. J Obstet Gynecol. Res.2008;34:67-72.
- 19. Talukder SI, Haque MA, Huq MH, Alammo et al. histopatholohgical analysis of hysterectomies sprecimens. Mymensingh Med J 2007;16(1):81-84.
- 20. Lee NC, Dicker RC, Rubin G,Oray HW. Confirmation of the preoperative diagnosis for hysterectomy. Am J Obstet Gynecol 1984;150(3)283-287.