International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Fatehpuriya DS et al. Int J Reprod Contracept Obstet Gynecol. 2017 Mar;6(3):934-938
www.ijrcog.org

pISSN 2320-1770 | eISSN 2320-1789

DOI: http://dx.doi.org/10.18203/2320-1770.ijrcog20170559

Original Research Article

Clinico–pathological study of hysterectomy in benign lesions: a study of 379 hysterectomies

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Received: 20 December 2016
Accepted: 31 January 2017

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ABSTRACT

Background: Uterus is a very vital reproductive organ and is subjected to many benign and malignant diseases. Hysterectomy is one of the most frequently performed procedures all over the world. Aims and Objectives of the work was to study the clinical benign indications of hysterectomy specimens and to correlate the findings with the histopathological reports.
Methods: A prospective and randomized study was performed in 379 cases of elective hysterectomies for benign lesions.
Results: Abdominal hysterectomy was performed in 64.6% cases while vaginal hysterectomy accounted for 35.3% cases. The mean age for hysterectomy was 45 years with a range from 14 to 78 years. Patients mostly presented with menstrual irregularities (34.3%) followed by prolapse uterus (30%). The principle indication of elective hysterectomy was leiomyoma and was present in 197(51.9%) patients, followed by prolapse uterus in 134 (35.3%) and dysfunctional uterine bleeding (DUB) in 26 (6.8%) patients. Maximum numbers of cases of leiomyoma, uterine prolapse and DUB were found in age group of 41-50 yrs.
Conclusions: The number of abdominal hysterectomy was more than vaginal hysterectomy. Most common presenting feature was menstrual related symptom followed by prolapsed. The main indication for elective hysterectomy was leiomyoma, prolapsed and DUB.

Keywords: DUB, Hysterectomy, Leiomyoma, Uterine prolapse

INTRODUCTION

Hysterectomy derived from a Greek word, hystera means "womb" and ektomia means "a cutting out of". It is one of the most frequently performed procedures all over the world. Uterus, a vital reproductive organ is subjected to many benign and malignant diseases. Leiomyomas are the most common tumor in women during the reproductive years.[1] International Hysterectomy rates vary, with the highest rates in the United States and the lowest rates in Norway and Sweden. A lower rate (4- 6%) has been reported from India.[2] High tolerance threshold of Indian women, low level of medical facility, illiteracy, poverty and cultural trends have been proposed as the reasons for this low rate.[3] Recently, reports have identified hysterectomy as a key health care indicator used to measure and compare hospital performance.[4] Lately, hysterectomy rates are also decreasing due to better availability of alternative methods.[5] But in spite of large number of potential alternatives to hysterectomy for benign diseases, hysterectomy rates have remained relatively stable because it is associated with higher rates of patient satisfaction than other methods.[6]

The aim and objective of the study was to investigate the clinical benign indications of hysterectomy, choice of

surgical approach and to correlate the findings with the histopathological reports of the specimen.

METHODS

This was a retrospective and randomized study, which was carried out in Department of Gynaecology and Obstetrics, Umaid Hospital, Dr. S. N. Medical College, Jodhpur. A total of 379 cases were selected by random selection from a group of patients who were admitted in Umaid hospital, Jodhpur. Cases were selected on the basis of clinical history, physical examination, aided by other ancillary measures such as diagnostic endometrial curettage, cervical biopsies, Pap's smear, ultrasonography etc.

Routine preoperative investigations and preparations were done. The type of hysterectomies performed were abdominal and vaginal, depending upon the type of lesion that the female had, age and general condition of the patient and the choice of operating surgeon. All the abdominal hysterectomies were done by modified Richardson's technique with slight variations, depending upon the choice of the surgeon. Vaginal hysterectomies were performed by Heaney's technique with or without slight modifications.

Finally, all operated specimens were subjected to histopathological examination. Histopathology reports were collected from Department of Pathology, Dr. S. N. Medical College, Jodhpur (Raj.) and their diagnosis were noted. All the data was collected as per performa.

Incidence of hysterectomies for benign lesions was calculated after taking into account the total number of gynaecological cases admitted in the Department of Gynaecology during the study period.

Outpatient follow up of the patients was done at one month.

RESULTS

A total of 379 cases of elective hysterectomies were studied for benign lesions. The incidence of hysterectomy was 35.3% (The number of gynecological admissions being 1073); out of which abdominal hysterectomy was performed in 22.8% while vaginal hysterectomy was done in the rest 12.4% of the females.

The number of cases of abdominal hysterectomy was 245 (64.6%) and vaginal hysterectomy was 134 (35.3%) (Figure 1). The ratio of abdominal to vaginal hysterectomies in our study was 1.8:1. Currently there is a changing attitude amongst gynecologists in favor of vaginal hysterectomy even in the absence of prolapse for benign conditions.

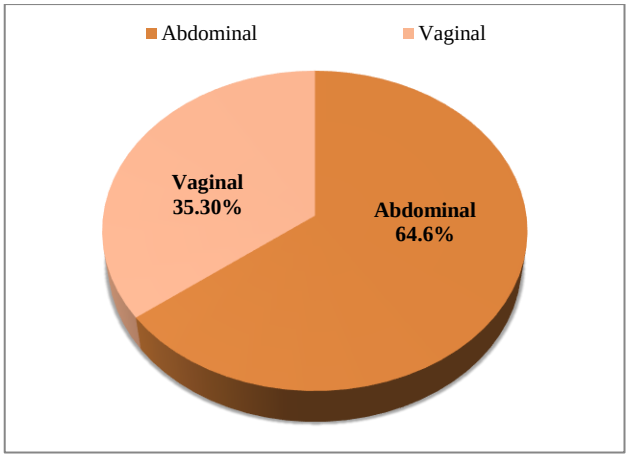

Figure 1: Distribution of 379 cases of elective hysterectomies according to type of operation performed.

Mean age for hysterectomy was 45 years with a range from 14 to 78 years (Figure 2). The youngest patient was 14 years of age (mentally retarded) and the oldest one was 78 years of age (fibroid). The age incidence of abdominal hysterectomy was found to be maximum in the age group 31-50 years. While maximum number of vaginal hysterectomies was done in the age group 41-50 years, the mean age being 51.1 years.

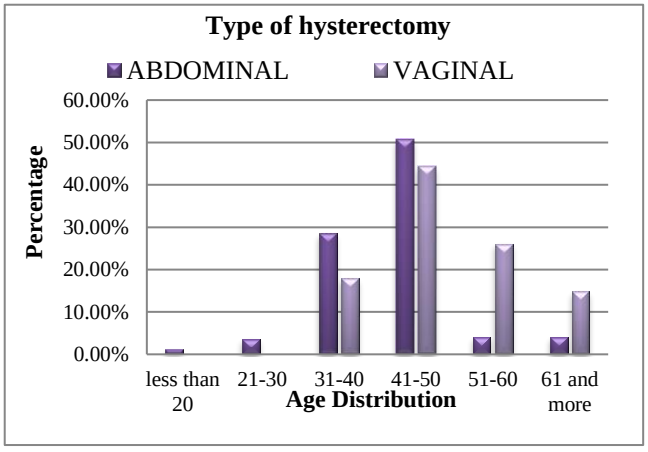

Figure 2: Distribution of cases according to age group.

Most commonly patients presented with menstrual related symptoms (34.3%) followed by uterine prolapse (30%). Maximum numbers of cases of leiomyoma, uterine prolapse and DUB were found in age group of 41-50 years (Table 1).

The principle indication of elective hysterectomy was leiomyoma 197(51.9%), prolapsed uterus in 134 (35.3%) and DUB in 26 (6.8%) (Table 2). Commonest indication for abdominal hysterectomy was leiomyoma while prolapse was the commonest indication for vaginal hysterectomy.

Table 1: Distribution of cases according to sign and symptoms.

Signs and symptoms	Abdominal		Vaginal	
	No. of cases	%	No. of cases	%
Menstrual related symptoms	120	48.97	10	7.46
Prolapse	0	0	114	85. 07
Pain abdomen	109	44.48	2	1.49
Urinary symptoms	2	0.8	3	2.2
Excessive discharge per vaginum	1	0.4	1	0.7
Backache	30	12.24	50	37.31
Lump lower abdomen	7	2.8	0	0
Post-menopausal bleeding per vaginum	3	1.2	1	0.7
Mental retardation	2	0.81	0	0
Constipation	1	0.4	3	2.2

Table 2: Distribution of disease according to clinical diagnosis.

Disease	Abdominal		Vaginal	
	Cases	%	Cases	%
Leiomyoma uteri	196	80	1	0.7
Dub	26	10.6	0	0
Prolapse	0	0	133	99.2
Post-menopausal bleeding per vaginum	0	0	0	0
Ovarian cyst	10	4.08	0	0
Mental retardation	2	0.8	0	0
Cervical polyp	3	1.2	0	0
Pelvic inflammatory disease	1	0.4	0	0
Ovarian mass	4	1.6	0	0
Adenomyosis	2	0.8	0	0

Out of 379 cases, 244 underwent total hysterectomy with bilateral salpingo-oopherctomy, adnexae was conserved in 2. Vaginal hysterectomy with anterior and posterior repair was done in 133 cases (Figure 3).

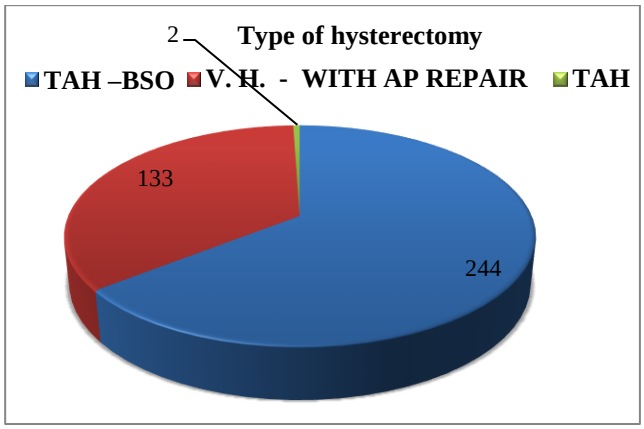

Figure 3: Distribution of cases according to the types of hysterectomy done.

Post-operative morbidity was seen in 80 patients; most common was fever in 40 (10.5%) cases (Table 3). Distribution of cases according to histopathological report (Figure 4a-c).

In present study, endometrium was proliferative in 83.9% (318) cases, hyperplastic in 0.52% (2) cases, secretory in 5.8% (22) cases and atrophic in the rest 10.5% (40) cases. All the hysterectomies done post menstrual phase hence endometrium in maximum cases was proliferative, fibroid and DUB being hyper estrogenic state and anovulatory, would have proliferative endometrium. (Figure 4a).

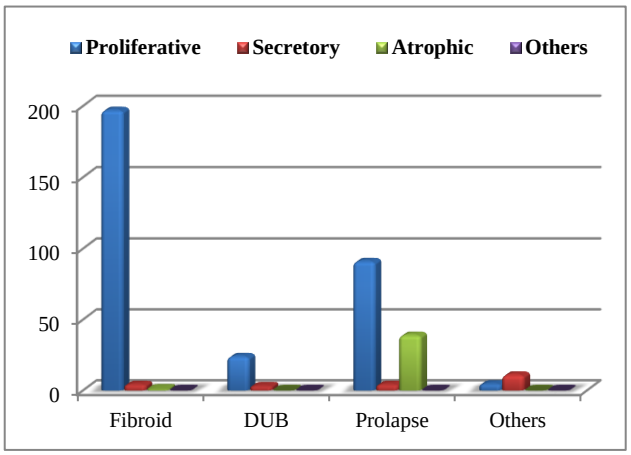

Figure 4a: Pattern of endometrium according to HPR.

In 204 cases of fibroid, myometrium revealed single or multiple leiomyoma with or without degenerations in 185 (90%) cases. 40.7% (11 cases) specimens of dysfunctional uterine bleeding showed histopathological reports suggestive of Adenomyosis uteri. 59.2% (16 cases) of DUB were associated with Leiomyomas. (Figure 4b).

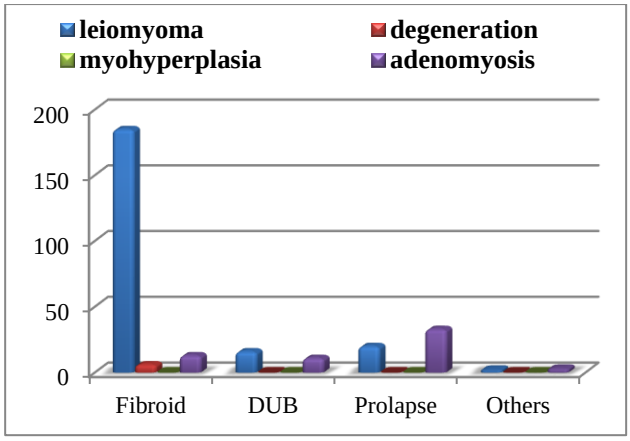

Figure 4b: Pattern of myometrium according to HPR.

In all the hysterectomies, the main pathology in myometrium was leiomyoma in 58.8% cases, followed by Adenomyosis in 15.8% cases.

Mild chronic nonspecific cervicitis was present in 96% specimens of hysterectomies performed. Dysplasia was reported in one patient, while ectocervical hyperplasia was evidenced in 7 cases (Figure 4c).

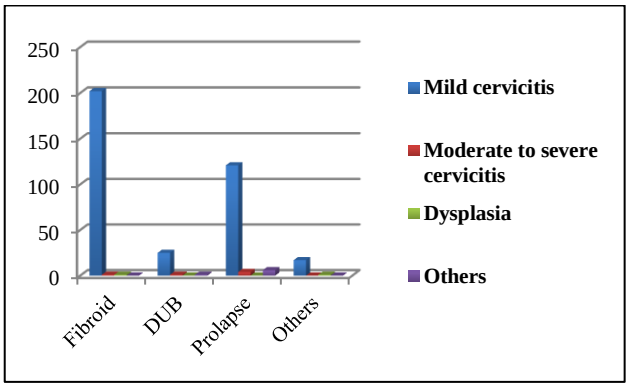

Figure 4c: Pattern of cervix according to HPR.

Table 3: Post-operative morbidity and complication.

Complications	Abdominal		Vaginal		Total	
	Cases	%	Cases	%	Cases	%
Fever	22	8.9	18	13.4	40	10.5
Wound sepsis	7	2.8	0	0	7	1.8
Urinary problems	10	4.08	0	0	10	2.6
Abdominal distension	0	0	0	0	0	0
Paralytic ileus	5	2.04	0	0	5	1.3
Bed sore	1	0.4	0	0	1	0.26
Secondary haemorrhage	0	0	0	0	0	0
B.t. reaction	0	0	2	1.4	2	0.52
Nausea and vomiting	2	0.8	3	2.2	5	1.3
Diarrhea	2	O.8	1	0.7	3	0.7
Others	3	1.2	4	2.9	7	1.8

DISCUSSION

This study was conducted to analyse the indication of hysterectomy, choice of surgical approach, safety of hysterectomy as surgical procedure and clinical aspect of hysterectomy as surgical procedure.

The number of abdominal hysterectomy was 245 (64.6%) and vaginal hysterectomy was 134 (35.3%) which were more than Ajmera Sachin et al in which abdominal was 54.6% and vaginal was 38.9% and less than M. Bukar, BM Audu, UR Yahaya et al in which abdominal hysterectomy with unilateral or bilateral salpingo-oophorectomy accounted for 73(79.3%) and vaginal hysterectomy contributed 19 cases (20.7%).[7,8]

Mean age of hysterectomy was 45 year similar to Qamar-ur-Nisa et al 45 years and also coincide with Acken and Zorou 42.5 years and Sobande AAet al 46.8 years.[9-11]

Maximum number of fibromyoma were found in age group 41-50 years (47%) similar to A.A. Sobande et al 41 - 50 years.[11]

The common presenting complaints were menstrual related symptoms followed by utero vaginal prolapse which was similar to in sequence to Qamar-ur- nisa et al.[9]

Principle indication of elective hysterectomy were leiomyoma, uterine prolapse and DUB each accounting for 197 (51.9%), 134 (35.3%) and 26 (6.8%) respectively which was similar to Choudhary with fibroid (43.8%), prolapsed (26.4%) and DUB (23.1%).[12]

CONCLUSION

In present study, 379 cases of elective hysterectomies for benign conditions were studied. Out of 379, 245 were done by abdominal route and 134 by vaginal route. The

main indication for hysterectomy was leiomyoma (53.8%) followed by prolapsed (34.5%) and DUB (7.1%). Most of the patients subjected to hysterectomy were admitted with complains of frequent bleeding per vaginum and prolapse.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Fatehpuriya DS, Verma L, Sharma S. Clinico–pathological study of hysterectomy in benign lesions: a study of 379 hysterectomies. Int J Reprod Contracept Obstet Gynecol 2017;6:934-8.