



Research Article

Significance of Histopathological Examination in Hysterectomy Specimens Operated for Clinically Diagnosed Uterine Prolapse

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Abstract

Objective: Uterine prolapse is very common gynaecological problem in Pakistan. The uterovaginal prolapse is commonly seen in post menopausal females but in Indo-Pakistan, the prolapse can occur in younger females and multigravida, due to malhandling during deliveries at home by untrained mid wives.

Methods: Total 69 cases of clinically diagnosed uterovaginal prolapse specimens were received in the department of pathology, Central Park Medical College, for a period of two years, from August 2017 to August 2019.

Results: All 69 cases showed microscopic evidence of prolapse. The commonest age group was between 45 - 64 years, with a mean age of 50.2 years. Chronic non-specific cervicitis was seen in all cases with other incidental lesions in 28 cases (41 %), these were, adenomyosis (13%), leiomyoma (9%), endometrial polyp (7%), chronic endometritis (4.4 %), endocervical polyp (3%), CIN I (3%), tuberculous endometritis (1.6%), while rest of the 41 cases (59%) showed chronic non-specific cervicitis alone.

Conclusion: Grossly unremarkable hysterectomies done for uterovaginal prolapse have shown quite a percentage of other incidental lesions, hence proving that all hysterectomy specimens should be evaluated microscopically as well and especially to rule out premalignant and malignant lesions.

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Introduction

Uterine prolapse is very common gynaecological problem in Pakistan¹. Prolapse can be of uterus, cervix, vagina or can involve bladder, rectum or contents of pouch of Douglas². In our part of the world, especially in Indo-Pakistan, the prolapse can occur in younger females and multigravida, due to mal-

handling during deliveries at home by untrained mid wives^{3,1}. Uterine prolapse is mostly seen in postmenopausal females, due to estrogen deficiency and multigravida due to weakness of muscles of pelvic floor and ligaments⁴.

The chances of uterovaginal (UV) prolapse increases with age and chances of prolapse rises as life expect-

tancy has increased⁵. As many women do not consult gynaecologist for medical advice, hence incidence of uterovaginal prolapse cannot be exactly determined⁶. Uterovaginal prolapse is also commonly seen USA and UK.^{7,8}

Hysterectomy is the ideal treatment of choice for prolapse, as it is commonly seen in postmenopausal and premenopausal women who have completed their families. Histopathological examination of hysterectomy specimen is controversial in such cases, as prolapse is a clinical diagnosis. But certain studies have shown the importance of microscopic diagnosis because of incidental findings in these specimens.^{3,9} Uterovaginal prolapse hysterectomy specimens which appear to be normal on clinical and gross examination, can show different types of lesions on histopathological examination.

The Aim of this study is to see incidental findings in clinically diagnosed uterovaginal prolapse cases, as there is no previous record of such type of study in our region.

Methods

This is a cross sectional study carried out at a tertiary care hospital Lahore, in the Department of Pathology for a period of two years, from August 2017 to August 2019.

All clinically diagnosed uterovaginal (UV) prolapse hysterectomy specimens received in Pathology Department in a given time period were included in the study.

Following subjects were excluded from study:

Hysterectomy specimens with bilateral salpingo-oophorectomy and Hysterectomy specimens which were removed for other indications.

Specimens were received in 10 % neutral buffered formalin, in a plastic container labelled with patient's name, surname, hospital number, with a hospital requisition form, containing all the above information. Specimens were given a lab number, bivalved and left in formalin over night for fixation.

After fixation, gross examination of the hysterectomy specimen was performed and appropriate sections were taken: one section each from both cervical lips, two sections from endomyometrium, one section from the vaginal flap and additional sections were taken from other gross lesions identified.

The sections were taken in plastic cassettes and numbered and tissue processing was done. After the tissue processing, paraffin blocks were made. On a rotary microtome, 3-4 µm thin sections were cut, taken on glass slides, dewaxed and stained by H & E method. The sections were examined by using Olympus multihead microscope. The microscopic findings were recorded and information was analyzed.

Results

A total number of 69 hysterectomy specimens operated for uterovaginal prolapse, were received in the histopathology laboratory of CPMC from August 2017 to August 2019.

In our study, according to age, we divided 69 cases in 3 groups, as given in table 1. The commonest age group of the prolapse is between 45 to 64 years of age (53 cases = 76.8 % of total). The least number of prolapse cases were found in youngest age group between 25 to 44 years (4 cases = 5.7%). The mean age for prolapse cases were 50.2 years.

Table 1 : Age Wise Distribution of Patient (Total – 69 Cases):

S. Number	Age Group	Number of Cases	Percentage
1.	25 – 44 years	4	5.7 %
2.	45 – 64 years	53	76.8 %
3.	65 – 84 years	12	17.5 %

In clinically diagnosed UV prolapse cases all the cases on microscopic examination also showed features of prolapse (acanthosis, papillomatosis and parakeratosis with keratinization).

On microscopic examination, chronic non-specific cervicitis was seen in all the cases along with additional lesions, which were, adenomyosis, leiomyoma, endometrial polyp, endometritis, endocervical polyp and tuberculous endometritis. (Table - 2) There were no malignancy seen in all these cases.

Table 2: Microscopic Lesions Seen in UV Prolapse Specimens.

S. Number	Lesions	Number of Cases	Percentage
1	Chronic non-specific cervicitis (alone)	41	59 %
2	Adenomyosis	9	13 %
3	Leiomyoma	6	9 %
4	Endometrial Polyp	5	7 %
5	Endometritis	3	4.4 %
6	Endocervical Polyp	2	3 %
7	CIN I	2	3%
8	Tuberculous endometritis	1	1.6 %

Following findings were seen in the endometrium of UV prolapse cases. The commonest finding was cystic atrophy. Other findings were secretory phase, proliferative phase and disordered proliferative phase endometrium as given in table-3.

Table 3: Microscopic Changes in Endometrium in UV Prolapse cases:

S. Number	Changes in Endometrium	Number of Cases	Percentage
1	Cystic atrophy /atrophy	48	69.5
2	Secretory Phase	11	15.9
3	Proliferative phase	8	11.6
4	Disordered proliferative phase	2	3

Discussion:

Uterovaginal prolapse is commonly seen in middle and old age females and is often an indication for surgery.

In our study the commonest age group in which prolapse was seen was the middle aged and elderly

females between 45 - 64 years. Mehboob et al¹⁰ reported that in his study genital prolapse was seen in women between 41 - 60 years of age, his age group is quite similar to our age group.

The mean age of women having vaginal prolapse was 50.2 years, in this study, which is quite similar to the mean age of 49 years in the study done by Abdullah et al¹¹.

In all of the prolapse cases microscopic examination revealed features of chronic non-specific cervicitis, but 28 cases (41 %) also showed other incidental findings along with chronic non-specific cervicitis. Ranjan D et al³, also reported chronic non-specific cervicitis in all his cases and 21 cases showed other lesions as well.

In our study, adenomyosis was seen in 9 case (13%) and leiomyomas were seen in 6 cases (9%), similarly Ranjan et al³, reported 8 cases (16%) of adenomyosis and 9 cases (18%) leiomyomas in his study. While G. Mahajan et al⁴ reported 23 case (29.9%) of leiomyoma in his study. His incidence of finding leiomyomas was at least three times more than in our study.

Other incidental findings were endometrial polyp 6 cases (7%), chronic endometritis 3 cases (4.4%), endocervical polyp 3cases (3%), CIN I, 2 cases (3%) and tuberculous endometritis 1 case (1.6%). G. Mahajan⁴ study has quite similar findings as ours, endometrial polyp 5 cases (6.5%), chronic endometritis 4 cases (5.2%), endocervical polyp 1 (1.3 %), CIN, 2 cases (2.6%) and tuberculous endometritis 1 case (1.3 %).

We also noted few microscopic changes in the endometrium. Majority of the specimens showed cystic atrophy /atrophy of the endometrium 48 cases (69.5%), secretory phase is seen in 11 cases (15.9 %), proliferative phase 8 cases (11.6%), disordered proliferative phase 2 cases (3%). If we compare our endometrial changes to the endometrial findings reported by Rupali Awale⁹, he also reported cystic atrophy /atrophy in majority of his patients, in 29 cases (52.7%), secretory phase in 8 cases (14.5%), proliferative phase in 12 cases (22%).

Our study and other studies show that hysterectomies done for UV prolapse have shown quite a percentage of other incidental lesions, hence proving that all hysterectomy specimens should be evaluated microscopically as well and especially to rule out premalignant and malignant lesions.

Conclusion:

Grossly unremarkable hysterectomies done for UV prolapse have shown quite a percentage of other incidental lesions, hence proving that all hysterectomy specimens should be evaluated microscopically as well and especially to rule out premalignant and malignant lesions.

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