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Original Research Article

Incidental gynaecological malignancy in women who underwent hysterectomy for utero-vaginal prolapse: a 3-year institutional case study

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ABSTRACT

Background: Pelvic organ prolapse is common is almost 50% of women over the age of 50years. The objective of the present study was to estimate the number of incidental gynaecological malignancies in women who underwent hysterectomy for utero-vaginal prolapse.

Methods: 354 women who presented with asymptomatic utero-vaginal prolapse were included in this study. Women who were symptomatic with bleeding per vaginum, lower abdominal pain or excessive white discharge and preoperative screening tests such as VIA/VILI, colposcopy, Pap smear and radio-imaging showing any gynaecological lesions were excluded from this study.

Results: Histopathological examination of the hysterectomy specimen showed premalignant lesion in 13 cases accounting to 3.7% (11 cases of CIN I, 1 case of CIN II, 1 case of CIN III) and malignant lesions in 5cases accounting for 1.4% (4 cases of endometrial adenocarcinoma and 1 case of cervical squamous cell carcinoma).

Conclusions: Asymptomatic women with utero-vaginal prolapse may have pre-existing premalignant and malignant lesions. Therefore, all women undergoing hysterectomy should be preoperatively screened with transvaginal ultrasound, endometrial biopsy and pap smear to rule out malignancy, as the management differs for patients with co-existing gynecological malignancies.

Keywords: Asymptomatic women, Cervical carcinoma, Endometrial carcinoma, Gynecological malignancies, Hysterectomy, Incidental, Unexpected, Utero-vaginal prolapse

INTRODUCTION

Pelvic organ prolapse is common is almost 50% of women over the age of 50 years.^{1,2} The incidence of unexpected gynecological malignant and premalignant lesions among asymptomatic women who underwent hysterectomy for uterovaginal prolapse varies between 0.7% and 2.6% according to literature.^{1,3} Women is said to be asymptomatic when they do not present with the symptoms, such as bleeding per vaginum, lower abdominal pain or excessive white discharge.⁴ The

incidence of co-existing malignancy is increased among the elderly women and risk peaks between the age group of 75-85 years old.⁵

METHODS

Over a span of three years, from May 2015 to April 2018, 417 women have undergone hysterectomy for utero-vaginal prolapse in a tertiary care centre at Kasturbai Gandhi Hospital, Chennai. Their medical records were assessed. Their mean age was 57.5 ± 22.5 years (35-80

years). The most common age group undergoing hysterectomy for uterine prolapse was 55 - 65 years. 4.5% of women had stage I prolapse, 16.7% had stage II prolapse, 44.3% had stage III prolapse and remaining 34.5% had stage IV prolapse. Women who were symptomatic with bleeding per vaginum, lower abdominal pain or excessive white discharge and preoperative screening tests such as VIA/VILI, colposcopy, pap smear and radioimaging studies showing any gynaecological lesions were excluded from this study.

Table 1: Surgical procedures performed for utero-vaginal prolapse.

Surgical procedure	Total
Hysterectomy with pelvic floor repair	228 (64.4%)
Vaginal hysterectomy	61 (17.2%)
Hysterectomy with pelvic floor repair with continence repair surgeries	20 (5.6%)
Hysterectomy with bilateral salpingectomy pelvic floor repair	18 (5.1%)
Total abdominal hysterectomy	15 (4.2%)
Hysterectomy with bilateral salphingo-oophorectomy	6 (1.7%)
Hysterectomy with bilateral salpingectomy	5 (1.4%)
Laproscopy assisted vaginal hysterectomy	1 (0.3%)

417 women underwent hysterectomy for utero-vaginal prolapse. 1 woman was excluded since she was a known case of carcinoma breast in post MRM, post chemotherapy status. 12 women were excluded since they presented with abnormal uterine bleeding for around two months. 6 women were excluded since they presented with excessive white discharge per vaginum. 7 women were excluded since they presented with lower abdominal pain. 4 women were excluded because of abnormal colposcopy findings. 3 women were excluded since they had VIA/VILI positive lesions. 1 woman was excluded because her pap smear revealed low-grade squamous intraepithelial lesion (LSIL). 8 women were excluded because their endometrial thickness > 8mm. 18 women were excluded because their ultrasound (USG) abdomen revealed hypoechoic lesion in the uterus. 1 woman was excluded because her hysteroscopy revealed cervical polyp. 1 woman was excluded because computed tomogram (CT) abdomen showed nodules in the adnexa. 1 woman was excluded because magnetic resonance imaging (MRI) scan revealed fibroid uterus.

Therefore 63 cases in total were excluded and the study was conducted on the 354 asymptomatic women who underwent hysterectomy for uterovaginal prolapse.

RESULTS

Retrospective study was conducted on the 354 asymptomatic women who underwent hysterectomy for

uterovaginal prolapse. On microscopic examination of the macroscopically normal hysterectomy specimens 13cases showed premalignant lesions accounting to 3.7% (11cases of CIN I, 1 case of CIN II, 1 case of CIN III) and 5cases showed malignant lesions accounting for 1.4% (4 cases of endometrial adenocarcinoma and 1 case of cervical squamous cell carcinoma).

The details of the five unexpected uterine malignancies in asymptomatic women who underwent hysterectomy for uterovaginal prolapse are given in the table below:

Table 2: Incidence of gynecological pathologies co-existing with utero-vaginal prolapse.

Pathologic condition	Pre-menopausal	Post-menopausal	Total
Leiomyoma	4 (1.1%)	31 (8.7%)	35 (9.9%)
Adenomyosis	22 (6.2%)	26 (7.3%)	48 (13.6%)
Leiomyoma with adenomyosis	6 (1.7%)	3 (0.8%)	9 (2.5%)
Endometrial polyp	1 (0.3%)	11 (3.1%)	12 (3.4%)
Endocervical polyp	2 (0.6%)	1 (0.3%)	3(0.8%)
Disorderly proliferative endometrium	3 (0.8%)	5 (1.4%)	8 (0.8%)
Simple hyperplasia without atypia	4 (1.1%)	2 (0.6%)	6 (1.7%)
Complex hyperplasia without atypia	2 (0.6%)	-	2 (0.6%)
Endometrial carcinoma	-	4 (1.1%)	4 (1.1%)
Chronic cervicitis	82 (23%)	260 (%)	342 (96.6%)
CIN I	3 (0.8%)	8(2.2%)	11 (3.1%)
CIN II	-	1(0.3%)	1 (0.3%)
CIN III	1(0.3%)	-	1 (0.3%)
Cervical carcinoma	-	1(0.3%)	1 (0.3%)
Chronic vaginitis	-	1(0.3%)	1(0.3%)
Chronic salphingitis	8 (0.8%)	11 (3.1%)	19 (5.4%)
Simple serous cyst	1 (0.3%)	1 (0.3%)	2 (0.6%)
Follicular cyst	2 (0.6%)	5 (1.4%)	7 (1.9%)
Corpus luteal cyst	1 (0.3%)	2 (0.6%)	3 (0.8%)
Mucinous cystadenoma	1 (0.3%)	-	1 (0.3%)
Papillary serous cystadenoma	1(0.3%)	-	1 (0.3%)

Table 3: Details of the women with unexpected gynecological malignancies.

Bx. No	Age	Procedure done	Hormonal status	Stage of Prolapse	Histopathological diagnosis
1058/18	55	Vaginal hysterectomy with pelvic floor repair	Post Menopause	4 th degree with cystocele and rectocele	Well differentiated infiltrating endometrial adenocarcinoma, grade I
1079/18	60	Vaginal hysterectomy with pelvic floor repair	Post Menopause	4 th degree with cystocele and rectocele	Moderately differentiated infiltrating endometrial adenocarcinoma, grade II
76/18	60	Vaginal hysterectomy with pelvic floor repair	Post Menopause	3 rd degree	Well differentiated infiltrating endometrial adenocarcinoma, grade I
3212/17	72	Vaginal hysterectomy with pelvic floor repair	Post Menopause	4 th degree with cystocele and rectocele	Poorly differentiated infiltrating endometrial adenocarcinoma, grade III
704/18	55	Vaginal hysterectomy with pelvic floor repair	Post Menopause	3 rd degree	Poorly differentiated infiltrating squamous cell carcinoma of cervix, grade III

The premalignant lesions of the cervix occurred in 2.5% of postmenopausal women whereas only 1.1% in premenopausal women. The malignant lesions both endometrial adenocarcinoma and cervical squamous cell carcinoma occurred only in postmenopausal women.

The premalignant lesions (13/13 cases) 100% found in the 3rd degree of uterovaginal prolapse. The malignant lesions in 3/5 cases (60%) were found in the 4th degree of uterovaginal prolapse and 2/5 cases (40%) in 3rd degree of prolapse cases. Therefore, both the premalignant and malignant lesions were found during the advanced stages of uterovaginal prolapse.

DISCUSSION

The incidence of unexpected gynecological malignant and premalignant lesions among asymptomatic women who underwent hysterectomy for uterovaginal prolapse varies between 0.7% and 2.6% according to literature.^{1,3} In a retrospective study conducted with 170 women, progression from endometrial hyperplasia to carcinoma was noted, 1% in case of simple hyperplasia without atypia and 29% in case of complex hyperplasia with atypia.² Hence if the endometrial thickness is 11mm or more, even in asymptomatic post-menopausal women, endometrial biopsy should be done to rule out malignancy.² Women is said to be asymptomatic when they do not present with the symptoms, such as bleeding per vaginum, lower abdominal pain or excessive white discharge.⁴

Renganathan et al. in a retrospective study, found that among the 517 asymptomatic women who underwent hysterectomy for uterovaginal prolapse, 0.8% women had endometrial carcinoma. Therefore, the study has concluded that preoperative transvaginal ultrasound is necessary to assess the endometrial thickness followed by endometrial sampling in case of thickened endometrium.⁶

Frick et al in a retrospective study found that among the 421 post-menopausal women with asymptomatic uterovaginal prolapse who underwent surgery, 0.2% had endometrial carcinoma and 2.6% had endometrial hyperplasia. Therefore, the study has concluded that although the risk of unexpected malignancy is low, this risk can be prevented by preoperative endometrial biopsy and transvaginal ultrasound.⁷

Salmon et al. in a study conducted over one year with 854 hysterectomy specimens has concluded that routine histopathological examination of hysterectomy specimens of both pre and post-menopausal cases are necessary to rule out the unexpected malignancies.⁸

Ramm et al. in a study found 5 out of 708 patients, that is 0.6% of the patients had unexpected endometrial carcinoma and 4 out of these 5 cases were negative for the preoperative screening tests.⁹ Mahnert et al reported that there is no direct association between gynecological malignancies and uterovaginal prolapse.¹⁰

Almost half of the prolapse patients had co existing uterine leiomyomas.^{11,12} Vaginal hysterectomy is the most common surgical procedure done for the management of uterovaginal prolapse. However, patients with co-existing malignant lesion would be best treated by vaginal hysterectomy with bilateral salpingo-oophorectomy and pelvic floor repair with peritoneal washings for cytological analysis.¹³ Hence transvaginal ultrasound and endometrial biopsy prior to surgery is necessary to rule out malignancy.

CONCLUSION

The risk of missing an unexpected gynecological malignancy is low. However, all asymptomatic women who are planned for hysterectomy should be preoperatively screened using transvaginal ultrasound on

routine basis and endometrial biopsy, pap smear if necessary, as the management differs for patients with endometrial/ cervical carcinoma and in cases of endometrial hyperplasias.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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