ORIGINAL ARTICLE

Gynecological Pathology in Women Experiencing Hysterectomy for Utero-Vaginal Prolapse.

Fardia Wagan[*], Raishem Ali[**], Rashida Akbar[***]

ABSTRACT

Objectives: To determine the gynecological pathology on histopathology in women undergoing vaginal hysterectomy for utero-vaginal prolapse at Tertiary Care facility.

Methods: This cross-sectional study was conducted, in Department of Obstetrics & Gynecology PUMHS Nawabshah (SBA) from August 2015 to July 2017. 150 patients admitted with diagnosis of pelvic organ prolapse (POP). 120 patients under gone elective hysterectomies, rest are not included in study (either managed conservatively or fit in exclusion criteria). Patients under gone through pre-operative preparation including papsmear, high vaginal swab, pelvic scan, and informed consent taken. Patients diagnosed with pre malignant and malignant condition and women with abnormal uterine bleeding were excluded from this study. Surgically removed specimen sent for histopathological assessment. Reports collected, data entered, tabulated then statistically analyzed.

Result: 120 hysterectomies were done for indication of POP. 107 (89.2%) were operated via vaginal route and 13(10.8%) though abdominal. Mean age with SD 53.28 ±725 years, ranging from 37 to 67 years. One was nulliparous (0.8%) rest multipara (99.2%). Over all 3.33% cases found to have pre malignant pathology. Histological assessment shows atrophic endometrium in 43.3%, secretory in 7.5%, proliferative in 5%, hyperplasia of any type in 1.7%, endometritis in 42.5%, while no case of endometrial cancer found. Myometrium was unremarkable in 109 patients, focal adenomyosis in 10 and leiomyoma in 1 patient, Cervical tissue analysis show evidence of infection in 104 patient, CIN 1 in 1 and CIN 3 in 1 patients and insignificant in rest. One patient had simple ovarian cyst.

Conclusion: Remote consequences of pelvic organ prolapse and because of co-incidental risk of malignancy, the specimen even after reconstructive surgery should be sent for histological analysis, owing to high false negativity of screening test.

Key Words: Gynecological Pathology, Histopathology, Hysterectomy, Pelvic Organ Prolapse.

Article Citation: Wagan F, Raishem A, Rashida A. Gynecological Pathology in Women Experiencing Hysterectomy for Utero-Vaginal Prolapse. J Peoples Uni Med Health Sci. 2017;7(4):151-6.

INTRODUCTION:

In developing states, the magnitude and effects of morbidity associated with pelvic organ prolapse (POP) are seldom acknowledged, because of patients' embarrassment. POP, A noteworthy problem in affluent countries, the position in unindustrialized countries is far worse. Uterine prolapse accounts for one of the common gynecological problems in Pakistan. The removed uterus is not supposed to have any significant pathology rather than atrophic endometrium or might be an ulcer. Histo-pathology is essential not only to confirm diagnosis but also to detect pathologies, not diagnosed pre-operatively.[1]

Pelvic organ prolapse is defined as prolapse or protrusion of pelvic organs from its normal confines. It may produce from a series of long term failure of the supporting and suspension tools of the uterus and the vaginal wall[2], with

* *Professor & Chairman, Deptt. of Gyne & Obs. PUMHS, Nawabshah.*

** *Assistant Professor, Deptt. of Gyne & Obs. PUMHS, Nawabshah.*

*** *Senior Registrar, Deptt. of Gyne & Obs. PUMHS Nawabshah.*

Correspondence to:

Dr. Farida Wagan

Professor & Chairman, Deptt. of Gyne & Obs: PUMHS, Nawabshah

Email: drfaridawagan@yahoo.com

significant negative consequences on patient quality of life and routine activities.[3] Information on magnitude, distribution and determinants of morbidity of POP is scarce in Pakistan and worldwide. Statistical capture for prevalence of pelvic organ prolapse in most countries is truly deficient and challenging to estimate because there is little screening in place and many women are too uncomfortable to mention symptoms to their doctors. Women suffering from uterine prolapse often receive physical and verbal abuse from their husbands and mothers-in-law because of the condition, with some husbands leaving or threatening to leave their wives; others incorrectly consider it indicative of venereal disease. Shy and afraid of the consequences; many women who suffer from this disease hide their problem from others for decades.[4]

Forty percent of participants in the women's health initiative (WHI) trial in the United States had some degree of prolapse. Uterine prolapse was found in 14% of the 27 342 women enrolled in the study.[5] Another US study of 149 554 women found an 11% lifetime risk of surgery for prolapse or incontinence in the United States. Prolapsed uterus could be related with uterine premalignant and malignant pathologies, as some studies show prevalence of such abnormality ranges from 0.7% to 4.2%.[6]

This study attempted to lighten the significance of histopathology of prolapsed viscera, which is mostly considered as age related benign pathology, and to enter such discussion in counseling of patient with POP.

METHODS:

This cross-sectional study was conducted, in Department of Obstetrics & Gynecology unit-I PMCH Nawabshah (SBA) from August 2015 to July 2017. Over all 150 patients admitted with diagnosis of pelvic organ prolapse (POP). 120 patients under gone elective hysterectomies, rest were not included in study (either managed conservatively or fit in exclusion criteria) after approval of the institute ethical committee for preoperative evaluation, surgical method, intra-operative and postoperative complications. After surgery specimen send to pathology laboratory for biopsy and histopathology reports collected. Women with a history of endometrial, cervical and/or adnexal precancerous or cancerous pathological conditions, on hormonal replacement therapy, and presenting with UVP and abnormal uterine bleeding such as heavy menstrual bleeding or postmenopausal bleeding or abnormally thickened endometrium on pelvic scan, were excluded. Reports were collected; data entered, tabulated then statistically analyzed.

RESULTS:

297 Hysterectomies were performed in two years due to different causes, but 120 (40%) were performed due to UVP, among these 107 (89%) performed vaginally and 13 (10.8%) abdominally. Mean age of the patient was 53.28 ±725 (age ± SD), ranges from 37 TO 67 years,majorities were in 4th to 6th decade of life. 81 (67.5%), 18 (15%) were below 40 years and 21 (17.5%) were above 60 years. One patient was nulliparous (0.8%), rest multiparous 119 (99.16%).Adnexa were removed in 3 (2.5%) while preserved in rest, over all premalignant changes found in 3.33% cases. Endometrium was atrophic in 43.3%(52),secretory in 7.5% (9), proliferative in 5%(6), hyperplasia without atypia in 1.7% (2) while nonspecific endometritis seen in 42.5% (51) and no any case of endometrial cancer found .Cervix shows mostly chroniccervicitis 86.6%(104),while 1 patient show CIN1 and 1 shows CIN 3on cervical histopathology, rest show un remarkable findings. Myometrium was unremarkable in 109 (90.8%) cases. while 10(8.3%) show focal adenomyosis on biopsy, leiomyoma was present in 1(0.8%) patient. Out of 3 cases in which adnexa removed, one patient found to have simple ovarian cyst on histopathology.

DISCUSSION:

The social consequences of prolapse are considerable, and include physical and emotional loneliness, rejection, break up, ridicule, low self-esteem, abuse, lack of economic support, and domestic violence. This is a common gynecological complaint but several females do

Table I. Age of Patients

Age	Frequency	Percent	Valid Percent	Cumulative Percent
Less Than 40 years	18	15.0	15.0	15.0
40 To 60 Years	81	67.5	67.5	82.5
More than 60 Years	21	17.5	17.5	100.0
Total	120	100.0	100.0	

Table II. Route of the Surgery

Age	Frequency	Percent	Valid Percent	Cumulative Percent
Vaginal Route	107	89.2	89.2	89.2
Abdominal Route with Adnexia	3	2.5	2.5	91.7
Abdominal Without Adnexia	10	8.3	8.3	100.0
Total	120	100.0	100.0	

Table III. Lesion of Endometrium

Age	Frequency	Percent	Valid Percent	Cumulative Percent
Cystic Atrophy	13	10.8	10.8	10.8
Atrophy	39	32.5	32.5	43.3
Secretory	9	7.5	7.5	50.8
Proliferative	6	5.0	5.0	55.8
Chronic Endometrites	51	42.5	42.5	98.3
Endometrial Hyperplasia of Any Type	2	1.7	1.7	100.0
Total	120	100.0	100.0	

Table IV. LESION OF CERVIX

Age	Frequency	Percent	Valid Percent	Cumulative Percent
Chronic Cervicites	104	86.7	86.7	86.7
CIN of any Type	2	1.7	1.7	88.3
Non Significant	14	11.7	11.7	100.0
Total	120	100.0	100.0	

not seek treatment because of awkwardness, or they are unaware that the disorder can cause problems and that management really exists. It is vital to pursue medical guidance early, so it can be treated. Common surgery performed for UVP is vaginal hysterectomy, but Manchester repair and hysteropexy are also frequently performed uterine preserving surgeries.[7] Although very rare but literature shows occurrence of pre malignant and malignant pathology in patient with POP, which could affect women health adversely, even in screened women. So this prospective study is done to over light this statement.[8]

The global prevalence, under age of 45 years, is in the range of 2% 20%[9] About 22% women in Pakistan and 19% in Karachi are identified with symptomatic prolapse[10]. Whereas the prevalence is almost similar in India with range of about 15% 20%.[11,12]

Hysterectomy is second most common

gynecological surgery performed worldwide and POP is one of the common indication for hysterectomy .In this study 297 hysterectomies performed in period of two years,40% done due to POP, whereas study by Panday D et al show 16.5% of hysterectomies were done for POP[13] in their study, and 8.3% by study conducted in South India by Tiwana KK et al[14], suggesting high occurrence in our study but it could be because of referral to tertiary care hospital from nearby primary health services centers, and also because of difficult work load in our rural areas. Very high prevalence of genital and uterine prolapse has also been reported among women of reproductive age throughout Sub-Saharan Africa which can be problematic, particularly for populations that are already nutritionally vulnerable.[4] Mean age of patient in our study is 53 year,as few authors have shown common decade of POP presentation is 6th and some suggest 5th in their study[15].

The incidence of unanticipated endometrial malignant and premalignant lesions in the literature among asymptomatic women with UVP undergoing hysterectomy for POP varies between 0.7 and 2.6%,[17]this study showed that risk 3.33% little greater that literature.

Comparatively study by Mizrachi Y Tannus S, et al[18] found 0.89% incidence of pre malignant and malignant pathology while study by Grigoriadis T, Valla A[4] et al. found 4.2% cases with abnormal histopathology of uterus.

This study showed 1.7% cases found to have endometrial hyperplasia (1-simple hyperplasia without atypia and 1-complex hyperplasia with atypia). Comparatively same result is seen in study, byGrigoriadis T, Valla A, Zacharakis D,[4] et al in that study 2.6 % cases found with that similar feature. While study by Elbiaa AA, Abdelazim IA[19] et al observe 12.5% incidence of endometrial hyperplasia of any type without atypia, comparatively high %. Wan etal[20] found 0.7% (3/456) cases of endometrial premalignant lesions among asymptomatic women.

In current study, 1.7% of the cases discovered with abnormal cervical histopathology (1- CIN 1and 1- CIN 3). This is explained by low sensitivity of pap smear test. Study by Elbiaa AA, Abdelazim IA, Farghali MM, Hussain M[21] et al showed high incidence of premalignant cervical changes that is 33.5%, and no case of cancer, Cuzick et al.[22] found 0.3% cases of cervical cancer, while study by Grigoriadis T et al[4] discover 0.3% cases with cervical cancer, 0.3% cases with CIN 3, 0.9% cases with CIN 1. Padam RP[23], conducted a study among women with pelvic organ prolapse in rural parts of Nepal to determine the incidence of pre- invasive and invasive carcinoma of the cervix, he found that the incidence of CIN 1as 52%, CIN 2 as 32%, CIN 3 to be 9.6% and invasive carcinoma 1.5% in 601 women. Although no cervical cancer found in current study but the risk of progression of CIN 3 to invasive cancer can not be ignored, and so many studies are available[24,25] to show such a finding in their study. Chronic inflammation is well-known to be linked with malignancies. Histopathology also shows simple ovarian cyst in one patient 33.3% (1/3), this high frequency is explained by low number of BSO performed (3/120). None of these patient were diagnosed pre operatively to have abnormal finding on pelvic scan reflecting the importance of trans vaginal scan in pre-op workup for the patient undergoing process of VH . Encountered difficulty of oophorectomy during VH and option of laparoscopic removal of ovaries with VH, if needed, should be entered in pre-op counseling. Menon etal[26] also found 3 simple serous ovarian cyst and no case of ovarian malignancy in their study and similarly study byElbiaa AA, Abdelazim IA, Farghali MM, Hussain M[22]et al showed 2.5% cases of simple serous ovarian cyst and no case of ovarian cancer. We conclude that women with POP may have associated premalignant lesions which may not be detected by conventional screening methods, and could transform into malignant lesions so this should be explained preoperatively for women undergoing surgery.

REFERENCES:

1. Babatunde O, Adegoke A, Regina O, et al. Spinal deformities among professional load porters in a Nigerian urban market. Journal of Environmental and Occupational Science. 2014;3(2):109113.
2. Faraj R, Broome J. Laparoscopic sacrohysteropexy and myomectomy for uterine prolapse: a case report and review of the literature. J Med Case Rep. 2009;3:99.
3. Detollenaere RJ, den Boon J, Stekelenburg J, et al. Treatment of uterine prolapse stage 2 or higher: a randomized multicenter trial comparing sacrospinous fixation with vaginal hysterectomy (SAVE U trial) BMC Womens Health. 2011;11:4.
4. Grigoriadis T, Valla A, Zacharakis D, et al. Vaginal hysterectomy for uterovaginal prolapse: what is the incidence of concurrent gynecological malignancy? IntUrogynecol J 2015; 26: 421-425.
5. Litwińska E, Nowak M, Kolasa-Zwierzchowska D, et al. Vaginal hysterectomy vs. laparoscopically assisted vaginal hysterectomy in women with symptomatic uterine leiomyomas: a retrospective study. PrzMenopauzalny 2014; 13:242-46.
6. Gumanga S, Munkaila A, Malechi H. Social Demographic Characteristics Of Women With Pelvic Organ Prolapse At The Tamale Teaching Hospital, Ghana. Ghana Med J. 2014;48(4):208213. http://dx.doi.org/10.4314/gmj.v48i4.7.
7. Hendrix SL, Clark A, Nygaard I, Aragaki A, Barnabei V, McTiernan A. Pelvic organ prolapse in the women's health initiative: gravity and gravidity. Am J ObstetGynecol 2002;186:1160-6.
8. Olsen AL, Smith VJ, Bergstrom JO, Colling JC, Clark AL. Epidemiology of surgically managed pelvic organ prolapse and urinary incontinence. ObstetGynecol 1997;89:501-6.
9. Bodner-Adler B, Shrivastava C, Bodner K. Risk factors for uterine prolapse in Nepal. Int.Urogynecol. J., 2007; 18(11): 1343-6.
10. Perveen S, Tayyab S, Mumtaz N. Pelvic organ prolapse in peri urban area of Karachi. Med. Channel., 2006; 12(4): 17-20.
11. Marchionni M, Bracco GL, Checcucci V, Carabaneanu A, Coccia EM, Mecacci F, et al. True incidence of vaginal vault prolapse. Thirteen years of experience. J Reprod Med 1999;44:679-84.
12. Duhan N, Kadian YS, Sangwan N, Sen R, Sirohiwal D, Rajotia N. Uterovaginal prolapse and cervical cancer: A coincidence or an association. J GynecolSurg 2008; 24:145-50.
13. Pandey D, Sehgal K, Saxena A, Hebbar S, Nambiar J, Bhat RG, et al. An audit of indications, complications, and justification of hysterectomies at a teaching hospital in India. Int J Reprod Med. 2014;2014:279273.
14. Tiwana KK, NibhoniaS,Monga T, and Phutela R, Histopathological Audit of 373 Nononcological Hysterectomies in a Teaching Hospital.Pathology Research International. vol. 2014, Article ID 468715, 5 pages, 201418. Renganathan A, Edwards R, Duckett JR. Uterus conserving prolapse surgery what is the chance of missing a malignancy? IntUrogynecol J. 2010;21:819-21.
15. Wan OY, Cheung RY, Chan SS, Chung TK. Risk of malignancy in women who underwent hysterectomy for uterine prolapse. Aust N Z J ObstetGynaecol 2013; 53: 190-96.
16. Frick A, Walters MD, Larkin KS, et al. Risk of unanticipated abnormal gynecologic pathology at the time of hysterectomy for uterovaginal prolapse. Am J ObstetGynecol 2010;202:507.e1-4.
17. Hendrix SL, Clark A, Nygaard I, Aragaki A, Barnabei V, McTiernan A. Pelvic organ prolapse in the women's health initiative: gravity and gravidity. Am J ObstetGynecol 2002;186:1160-6.

18. Mizrachi Y, Tannus S1, Bar J1, SagivR1 ,Levy T1, Condrea A1, Ginath S1. Unexpected Significant Uterine Pathological Findings at Vaginal Hysterectomy Despite Unremarkable Preoperative Workup. Isr Med Assoc J. 2017 Oct;19(10):631-34.
19. Elbiaa AA, Abdelazim IA, Farghali MM, Hussain M, Omu AE. Unexpected premalignant gynecological lesions in women undergoing vaginal hysterectomy for utero-vaginal prolapse. PrzMenopauzalny. 2015;14(3):188-91.
20. Wan Colfer C, Powell B. Forests, women and health: opportunities and challenges for conservation. International Forestry Review. 2011;13(3):369-387.
21. Elbiaa AA, Abdelazim IA, Farghali MM, Hussain M, Omu AE. Unexpected premalignant gynecological lesions in women undergoing vaginal hysterectomy for utero-vaginal prolapse. Prz Menopauzalny. 2015;14(3):188-91.
22. Cuzick J, Clavel C, Petry KU, et al. Overview of the European and North American studies on HPV testing in primary cervical cancer screening. Int J Cancer 2006; 119: 1095-1101.
23. Bodner-Adler B, Shrivastava C, Bodner K. Risk factors for uterine prolapse in Nepal. Int. Urogynecol. J., 2007; 18(11): 1343-6. DOI: 10.1007/s00192-007-0331-y.
24. Raj PP. Preinvasive and invasive neoplasm of the cervix among the women with uterine prolapse, MedicaInnovatica. Academic Journal. 2013;2(2):36.
25. Kurman RJ, Kaminski PF, Norris HJ (1985) The behavior of endometrial hyperplasia. A long-term study of"untreated" hyperplasia in 170 patients. Cancer 56:403-12.
26. Menon U, Gentry-Maharaj A, Hallett R, et al. Sensitivity and specificity of multimodal and ultrasound screening for ovarian cancer, and stage distribution of detected cancers: results of the prevalence screen of the UK collaborative trial of ovarian cancer screening (UKCTOCS). Lancet Oncol 2009;10: 327-340.