

Vaginal Cancer: Association with Long Term Use of Pessary in Pelvic Organ Prolapse, a Case Series

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Abstract:

Vaginal cancer, rarest form of gynaecological cancer (0.6%) has been found to be associated with long term use of vaginal ring pessary, which have long been used in alternative management of pelvic organ prolapse (POP) other than surgery. A survey was done in remote areas of Cox's bazar, refugee camp in 2019 where out of 52 cases of pelvic organ prolapse, 7 cases found to use vaginal ring pessary for long and out of 7, vaginal cancer developed in 4 cases. All of them were aged women above 60 and had defaulted follow up presented with vaginal bleeding, varying discharge and pain of varying intensity. One patient had only local lesion –surgical removal followed by radiotherapy and 2nd one, 68 years, received neo-adjuvant therapy and died before planned surgery. The 3rd one, aged 79, did not come for follow up

Introduction:

Vaginal cancers are very rare and constitute about less than 1% of all gynaecological cancers¹. Primary vaginal cancers are strictly confined to vagina with no involvement of cervix or vulva and no evidence of metastasis elsewhere. The exact etiology is obscure though found to be associated in elderly women with HPV viral infection, chronic irritation, infection and radiation elsewhere for treating other diseases². Almost 99% of vaginal cancers are squamous cell carcinoma. Vaginal intraepithelial lesion(VAIN) is the forerunner of vaginal cancer like CIN

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once diagnosis vaginal cancer done and advised for definitive surgical treatment, family refused operation and she passed away after 2 years at 81 years. The 4th one declined further investigations and any form of treatment when diagnosed with vaginal cancer. So, all patients of pelvic organ prolapse should be informed thoroughly (both verbal and written informed consent) before inserting pessary for potential long term serious consequences where strict compliance must be ensured for subsequent regular follow up and biopsy should be mandatory for any suspicious chronic vaginal ulcers among them.

Key words: (POP) Pelvic organ prolapse, Ring pessary

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but there is no established routine/universal screening techniques to detect it early as for CIN.

Pessaries of various types have been using as an alternative option of pelvic organ descent for long. Newer silicone made synthetic forms of pessaries are used and long term its use found to be associated with development of vaginal carcinoma³.

As diagnosis and treatment of vaginal cancer is very complicated. It needs proper evaluation and it is a dilemma to treat elderly patients as majority of elderly (95%), staying alone with no family members support specially in poorer section of the community (Can't attend health care facilities either alone or because of financial constrain) and more over advanced age and related co-morbidities make them vulnerable to no attendance or maintain compliance to any given treatment or medications. Morbidities and mortalities are also higher⁴ in this fragile age group.

Case presentations

Case 1

A 76 –year- woman, Para7, presented with protruding mass through vagina with small amount of bleeding for

one month. She had history of difficult home delivery with perineal tears and also H/O constipation but with no other medical problems. She worked in nearby house as house assistant and had this pelvic organ prolapse since after 1st delivery. Initially 1st degree-ultimately progressed to 3rd degree since 20 years and was given Vaginal ring Pessary as she was reluctant for surgical procedure. Initial 3-4 years she come for F/U but since she is widow for 25 years, depended on children, because of their busy schedule could not bring her for F/U until when she came with chronic urinary retention with vaginal discharge. Examination revealed - foul smelling, a bit friable mass about 4x3 cm on right wall of vagina and impacted ring pessary on right anterior wall of vagina causing urinary retention. Biopsy showed well differentiated squamous cell carcinoma of vagina.

After discussing with oncologist neo-adjuvant therapy started (Taxol and Carboplatin) prior definitive surgery. After 3 cycle of therapy-tumour size reduced significantly, after completing the total 6 cycles of regimen when she was prepared for definite surgery of vaginal hysterectomy and pelvic floor repair, she passed away because of Covid infection.

Case 2

A 68-year- lady, street vendor, diagnosed case of chronic renal impairment was brought to local hospital because of chronic incarceration of long standing pelvic organ prolapse. She was a known case of prolapse with H/O ring pessary inserted about 15 years before. Since then she never attended any health care facility for F/U though she was strictly instructed as she said she felt better and relieved of symptoms of prolapse after pessary insertion. She was brought to OPD by neighbours because of vaginal bleeding and puffiness of whole body with scanty urine output. On examination after removal of pessary, a friable mass of about 5x4 was seen in left fornix- biopsy of which revealed poorly differentiated vaginal carcinoma. Moreover, she was also diagnosed with end stage kidney failure. Before further investigations and evaluation she passed away within one week.

Case 3

She is 69 years old lady, para 9, all home delivery, attended out- patient department of nearby clinic with history of descent of pelvic organs for 28 years since after her 8th delivery, initially 2nd degree followed by

complete procidentia. She was menopausal for 18 years, Pap's smear done twice with negative results but she has co-morbidities with long standing hypertension and type 2 diabetes with irregular medications but with no previous history of any surgery. She was non-smoker, non- alcoholic with body weight 61 kg. She was a separated lady for last 23 years and was staying with her sons. During booking she also had features of cardiac and renal impairment, so after discussion she was offered vaginal ring pessary with advice for follow up. After initial 3 visits she defaulted.

After 3 years when she came with a bit smelling vaginal discharge and bleeding which on examination revealed a neglected pessary and a small mass on superadded ulcer of about 3x2cm, biopsy of which revealed well differentiated squamous cell carcinoma of vagina with no evidences of metastasis as revealed by CT and cystoscopy. After counselling and considering all risks, surgery proceeded –Vaginal hysterectomy with bilateral salphingo-oophorectomy, pelvic floor repair with sacrospinous fixation. Histopathology showed the same findings with clear vaginal margins, paravaginal tissues, ovaries, uterus and other structures negative for malignancy. She was referred to radiation oncologist where she received both external & internal Radiotherapy.

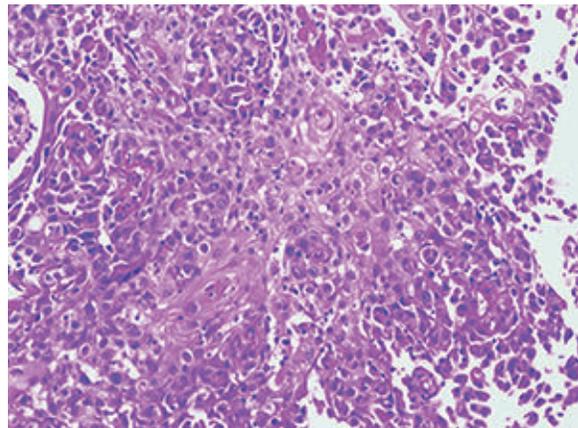


Fig-1: Histopathology: Well Differentiated Squamous cell carcinoma of Vagina

Case 4

She was 71 years, found in local bus terminal lying with H/O of ring pessary insertion some 23 years before. She was a single woman whose husband and 4 children

died of launch accident, now she was a diagnosed case of pshyco-affective disorder with pelvic organ prolapse with H/O insertion of pessary written in a paper with her. She was taken to nearby clinic where after resuscitation, other systems normal finding but with a very smelling discharge from vagina.

Vaginal examination revealed a neglected chronic ulcer with discharge coming from anterior wall of vagina with deeply impacted pessary. Pessary removed and biopsy from ulcer shows well differentiated vaginal cancer. Pap's smear never done before. After initial management while she was being prepared for definitive surgery, she absconded.

Discussion:

Women usually develop pelvic organ prolapse when supporting structures gets weak as a result of repeated and neglected or unattended childbirth. The descent process though starts just after this type of incident but to manifest symptoms took some years, may be 15-20 years⁵. Most of them are by that time aged with almost no family support and some of them preferred insertion of pessaries as an alternative option for surgery⁶. Vaginal ring pessary is one of the commonest managements in these groups of women because of simple procedure and available everywhere with no need of admission and anaesthesia as well⁵. Superficial vaginal erosion (8.9%), vaginal discharge and infection occurs in most of these women using these pessaries⁶. Some women found to develop fistula, after using shelf pessaries and incidence of vaginal or cervical cancers rate increases to be of significance⁷.

Informed consent, careful strict follow up at regular interval of 3-6 months for cleaning and to look after the exact position of pessary is of paramount importance to detect early ulcer or discharge if any⁸. A non-healing ulcer as a result of chronic irritation on vaginal walls lead to development of cancers⁹. This event is triggered by advanced age, coexisting medical morbidities, unhygienic life style, superadded HPV infection flare up the chronic inflammatory process, metaplasia and ultimately dysplasia and cancer^{8,10}.

Gynaecologists should always aware of this potential complication while using pessary as alternate treatment of prolapse and during follow up, vagina should be

thoroughly examined for any ulcer/erosion and infection which should be vigorously treated and biopsy is mandatory for tissue disorder diagnosis. Those who are non-compliant with pessary, should offer definitive surgical management of prolapse.

Conclusion:

Women with pelvic organ prolapse, pessary should be used only those who are strict on compliance to come for regular follow up to detect early stage of any vaginal ulcer which might proceed to cancer. And all women must be informed about this rare but dangerous complication before insertion of pessary. And whenever any suspicious ulcer it is mandatory to take biopsy for proper histopathological report.

References:

1. Abdulaziz M, Lazare D, Macnab A. An integrative review and severity classifications of complications related to pessary use in treatment of pelvic organ prolapse. *Can Urol Assoc J* 2015;9(5):E400-6. <https://doi.org/10.5489/cuaj.2783> PMID:26225188 PMCID:PMC4479661
2. Bai SW, Yoon BS, Kwon JY, Shin JS, Kim SK, Park KH. Survey of the characteristics and satisfaction degree of the patients using a pessary. *Int Urogynecol J Pelvic Floor Dysfunct.* 2005;16(3):182-6. <https://doi.org/10.1007/s00192-004-1226-9> PMID:15578156
3. Bugge C, Adams EJ, Gopinath D, Reid F. Pessaries (mechanical devices) for pelvic organ prolapse in women. Donato VD, Fischetti M, Perniola G. Vaginal cancer. *Critical reviews in Oncology Haematology* 2012;81(3):285-294. <https://doi.org/10.1002/14651858.CD004010.pub3> PMID:23450548 PMCID:PMC7173753
4. Cochrane Database Syst Rev. 2013;2013(2):Cd004010. <https://doi.org/10.1002/14651858.CD004010.pub3> PMID:23450548 PMCID:PMC7173753
5. Donato VD, Fischetti M, Perniola G. Vaginal cancer. *Critical reviews in Oncology Haematology* 2012;81(3):285-294 <https://doi.org/10.1016/j.critrevonc.2011.04.004> PMID:21571543
6. Gardner CS, Klopp AH, Sagebeil T, et al. Primary vaginal cancer: role of MRI in diagnosis, staging and treatment. *Br J Radiol* 2015;88: 20150033. <https://doi.org/10.1259/bjr.20150033> PMID:25966291 PMCID:PMC4651370
7. Hakvoort RA, Asseler J, Roovers JP. Effect of pessary cleaning and optimal time interval for follow-

8. Iglesia CB, Smithlink KR. Pelvic organ prolapse. *Am Fam Physician* 2017;96 (3): 180-184
9. International Urogynaecology Consultation chapter 1 committee 4: patients' perception of disease burden of pelvic organ prolapse Robinson, Dudley; Prodígalidad, Lisa T; Chan, Symphorosa; Serati, Maurizio; Lozo, Svjetlana; Lowder, Jerry; Ghetti, Chiara; Hullfish, Kathie; Hagen, Suzanne; Dumoulin, Chantal.
10. Powers SA, Burleson LK, Hannan JL. Managing female pelvic floor disorders: a medical device review and appraisal. *Interface focus* 2019;9(4); 20190014. <https://doi.org/10.1098/rsfs.2019.0014> PMID:31263534 PMCID:PMC6597523
11. Wu V, Farrell SA, Baskett TF, Flowerdew G. A simplified protocol for pessary management. *Obstet Gynecol.* 1997;90(6):990-4. [https://doi.org/10.1016/S0029-7844\(97\)00481-X](https://doi.org/10.1016/S0029-7844(97)00481-X) PMID:9397117