



## **CASE REPORT**

### **LARGE POSTERIOR VAGINAL WALL MULLERIAN CYST : A RARE CASE REPORT.**

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#### **Abstract**

Mullerian duct cysts are rare pelvic cystic lesions. It usually presents as small, midline, cystic lesion with no symptoms and require no treatment. Occasionally, a mullerian cyst may become large with symptoms that will warrant excision. Our case is an unusual large symptomatic posterior vaginal wall mullerian cyst, who was treated by complete cyst excision.

**KEYWORDS:** Vaginal cyst, mullerian, PAS-positive.

#### **INTRODUCTION**

The reported incidence of vaginal wall cyst is 1 in 200 females<sup>[1]</sup>. They develop from the remnants of the embryologic para mesonephric ducts. Vaginal cysts have been classified according to the histology of their lining as epithelial inclusion cyst, mullerian cyst, urothelial cyst in addition to other rare types<sup>[2]</sup>. Mullerian cysts are benign mucus-producing cyst accounting for approximately 40% of vaginal cyst<sup>[3]</sup>. Mullerian cysts can be present anywhere in the vaginal wall, because during replacement of mullerian epithelium with squamous epithelium in the urogenital sinus, mullerian epithelium can persist anywhere within the vaginal wall. The peak clinical incidence is between the third and fourth decade of life. Usually it is small in size less than 2cm in diameter, incidentally found during routine gynecological examination. Large mullerian cysts usually present as anterior enterocele<sup>[4]</sup>. We report a case of unusually large symptomatic posterior vaginal wall mullerian cyst.

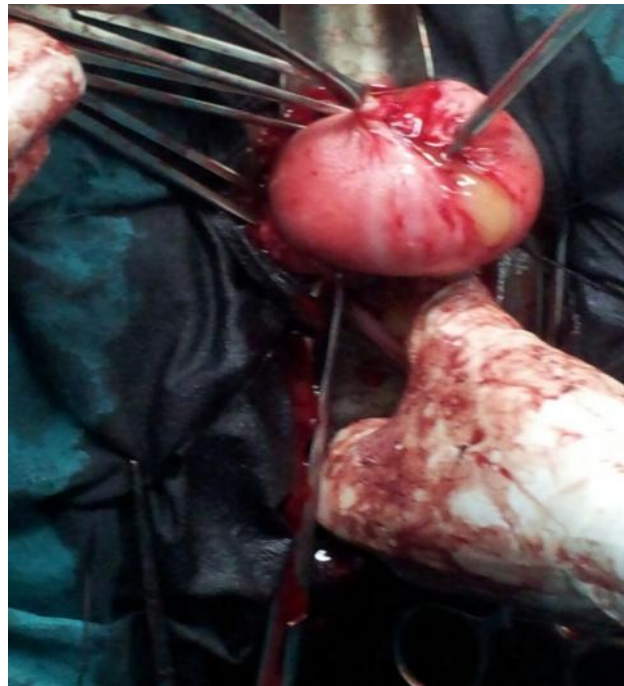
**CASE REPORT :**

A 44 year old multiparous women presented to our OBG out-patient department with complains of mass per vagina interfering with coitus since 1 year . The mass was initially smaller in size and it gradually increased to the present size. Her menstrual, obstetric, past medical and surgical history were unremarkable. Pelvic examination revealed a healthy cervix with second degree UV prolapse and a cystic swelling of 10 x 8cm arising from the posterior vaginal wall. Vaginal rugosity over the swelling was absent. Cyst was extending from posterior fornix to around 8cm below the posterior fourchette. There was no cough impulse over the swelling. On per rectal examination, the cyst was felt separate from the rectal wall. A diagnosis of second degree UV prolapse with posterior vaginal wall cyst was made and patient underwent surgical excision of the cyst with vaginal hysterectomy.

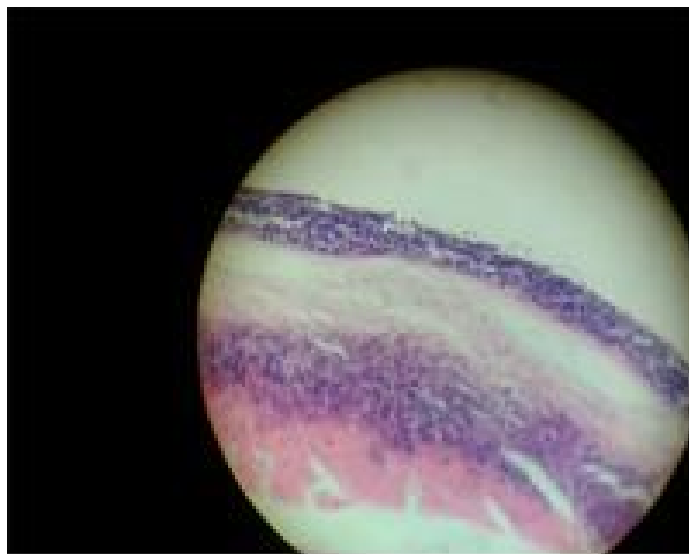


**Figure 1 Vaginal cyst arising from posterior vaginal wall.**

During the procedure a vertical incision was made on the vaginal wall over the cyst, by sharp and blunt dissection the cyst was completely excised. . The cyst accidentally ruptured during dissection, around 150 ml of mucoid material was drained. Excess vaginal wall excised and the vagina was reconstructed. Histopathology confirmed the diagnosis as mullerian cyst. The cyst wall was lined by tall columnar epithelium with a basally placed nuclei and apical mucin. Sub epithelial stroma showed oedema and lymphocytic infiltrate. Bundles of smooth muscles, thick walled blood vessels were seen in the deeper tissue.



**Figure 2** Accidental rupture of the cyst during dissection



**Figure 3** Histopathologic Picture of the mullerian Cyst Wall.



Patient had an uneventful recovery and was discharged on third post operative day. Patient was followed up for one year during which she had no recurrence.

### DISCUSSION:

Mullerian cyst are the commonest congenital vaginal wall cyst<sup>[5,6]</sup>. Vaginal wall cyst have been reported predominantly in women of child bearing age<sup>[6]</sup>. Its prevalence of is unclear but estimated to be less than 1% . They are usually single may be multifocal. Usually presents as a small, midline cystic masses with no symptoms and require no treatment .If symptomatic presents as visible or palpable mass, dyspareunia voiding problems, vaginal discharge and pain.

They arise at the level of cervix and usually extend anteriorly but in our case it presented as a posterior vaginal wall cyst. Clinically on gross examination a mullerian cyst resembles a Gartner's duct cyst, histochemical evaluation of epithelial mucin production differentiates the two conditions. In contrast to epithelium of mullerian cysts, the epithelium of gartners cyst is devoid of cytoplasmic mucarmine and PAS- positive material. Complication of mullerian cyst are very rare, two cases of complication have been reported, one is intracystic haemorrhage into the mullerian cyst<sup>[7]</sup> and the other is malignant transformation (adenocarcinoma) of cyst<sup>[8]</sup>. Differential diagnosis of enterocele, rectocele, inclusion cyst, endometriotic cyst and Gartners cyst have to be considered in case of posterior vaginal wall cyst. A simple pelvic examination by inspection and palpation provides enough information to make the diagnosis. Imaging modalities like transvaginal, perineal sonography and MRI are helpful to know the exact localization , number and communication with surrounding structures<sup>[9]</sup>.

Confirmation of the diagnosis is by histopathological examination which reveals mucin secreting tall columnar epithelial lining the cyst and PAS positivity<sup>[10]</sup>. When the cyst is lined by columnar mucin secreting endocervical type cells it produces mucous, although other cyst wall linings such as endometriod , ciliated fallopian tube type cells can also be observed with in the cyst wall.

Conventional therapy for small, asymptomatic cyst is observation and follow up. Symptomatic or large cyst requires surgical resection and vaginal reconstruction. Excision of the cyst is treatment of choice, cyst wall must be completely removed to prevent recurrence.

Our patient presented in the perimenopausal age with a large posterior vaginal wall cyst interfering with coitus and was managed by complete surgical excision and vaginal reconstruction.

Conflict of interest: None. Consent of patient: obtained

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