

CASE REPORT

**Large Disappearing Mullerian Cyst on Posterior Vaginal Wall:
Report of a Rare Case**

Preeti Chhallani^{1}, Pradeepkumar Vaishwanar¹, Dnyanesh Belekar², Archana Khandelwal³*

¹Department of Obstetrics and Gynecology, ²Department of General Surgery, ³Department of Pathology, Terna Medical College, Nerul, Navi Mumbai- 400706 (Maharashtra) India

Abstract:

Cystic lesions of vagina are relatively uncommon and an incidental finding during routine gynaecological examination. Mullerian cysts are congenital cysts of vagina, usually reported during childbearing age group. These cysts mostly arise at the level of cervix and extend anteriorly in relation to bladder, but very rarely they may also extend posteriorly. This is a rare case of large posterior vaginal wall cyst of Mullerian origin. A 40 year old multi para (P2L2 both Full term normal delivery) presented with complaints of swelling in vagina since one and half years. Pelvic examination revealed a 6cms x 4cms x 3cms cystic mass arising from the posterior vaginal wall. Complete excision of the cyst was done. Histopathology confirmed a Mullerian cyst.

Keywords: Mullerian Cyst, Posterior Vaginal Wall

Introduction:

Cysts of vaginal wall are relatively uncommon and are often an incidental finding in gynaecological practice. Vaginal cysts have been classified according to the histology of their lining as epithelial inclusion, mullerian, mesonephric and urothelial in addition to other rare types. The most common location is along the antero-lateral aspect of the vagina [1]. Mullerian cysts are usually less than 2cm in size and asymptomatic. They usually require no treatment but occasionally may be large enough to cause symptoms and therefore require treatment with surgical excision [1]. This is a rare case of Mullerian cyst involving the posterior vaginal wall.

Case Description:

A 40 year old Hindu housewife was presented to Out Patient Department (OPD) of Gynecology Department with complaints of swelling in vagina since one and half years, which gradually increased in size. There was a complaint of dyspareunia. No history of increase in size of swelling on straining or lifting heavy weights. There was no menstrual or bowel/bladder complaints. Her obstetric history was P2, L2 both were full term normal delivery. Her past medical and surgical history was not significant. Her general physical examination was normal with vitals stable. Her other systemic examination did not reveal any abnormality. External genitalia were normal.

On per speculum examination, a swelling 6cms x 4cms x 3cms was located on middle one third of posterior vaginal wall and its margins were regular. The vaginal rugosities over swelling were absent. There was no cough impulse and cervix was healthy. Per vaginal and local examination revealed a 6cms x 4cms x 3cms non tender swelling, cystic in consistency. It was arising from middle one third of posterior vaginal wall. (Fig.1). Uterus was normal in size, anteverted, anteflexed, fornices free and non tender. On surgical evaluation, rectal mucosa was free and no mass felt in rectovaginal septum. Per rectal examination revealed that swelling disappeared completely when palpating finger was flexed.

On differential diagnosis, rectocele was ruled out by doing per rectal examination. Bartholin's cyst and Gartner's cyst were excluded with their locations. Inclusion cysts are small cysts located in lower vagina. Enterocoele was excluded as there was no cough impulse and cyst was confined to middle 3rd of vagina.

On investigation, Pap smear and blood biochemistry was normal. Ultrasonography of pelvis was suggestive of normal uterus and ovaries. A well defined anechoic lesion was seen in vaginal wall, inferior to cervix. It measured 5 cms x 3 cms x 2 cms with no internal echoes or septae. Features were suggestive of a vaginal cyst arising from posterior vaginal wall, likely to be a developmental malformation. MRI abdomen shows an abnormal well defined lesion in vagina approximately 5.3 cms x 2.7 cms x 1.8 cms. The lesion appeared homogeneously hyper intense extending below pubic symphysis.

A decision to do excision under spinal anesthesia along with surgical standby was taken. Fear that cyst might disappear under anesthesia prompted us to inject methylene blue preoperatively. A small vertical incision was taken on the cyst and it was excised by blunt and sharp dissection. During dissection it was noticed that cyst on its superior aspect had an elongated stalk. This stalk was patent in inferior aspect as it was containing the methylene blue. The superior part of the stalk was solid like a pedicle. (Fig.2) The stalk was cut superiorly at its attachment. A large cavity which easily accommodated the entire fist and whose upper extent could not fully visualize had to be sutured. This large dead space was sutured in 2-3 layers after packing absorbable gelatin sponge inside the cavity. Excess vaginal tissue was excised and vaginal mucosa closed with absorbable sutures and complete haemostasis was achieved. (Fig.3) A vaginal packing was done and urinary catheter drained clear urine. Adequate antibiotic cover was provided and the vaginal

pack removed 12 hours post-operatively, with no bleeding or haematoma formation noticed. Specimen sent for histopathological examination. Patient was discharged three days after surgery without any complication. Gross specimen showed a single cystic globular soft tissue piece of the size 5.5cms x 3.2cms with unilocular cyst containing inspissated mucin. H and E stained sections of histopathology revealed a cyst lined by mucin secreting columnar epithelium which was showing squamous metaplasia at places. The wall was fibrocollagenous. (Fig.4) The diagnosis of Mullerian cyst was confirmed.

During postoperative follow up period, patient recovered completely with no recurrence of lesion.

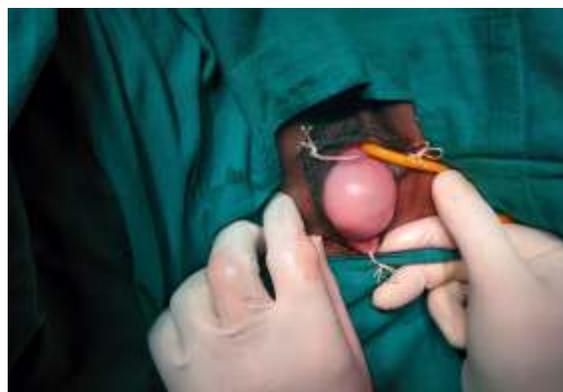


Fig.1: Local Examination showing Posterior Vaginal Wall Cyst

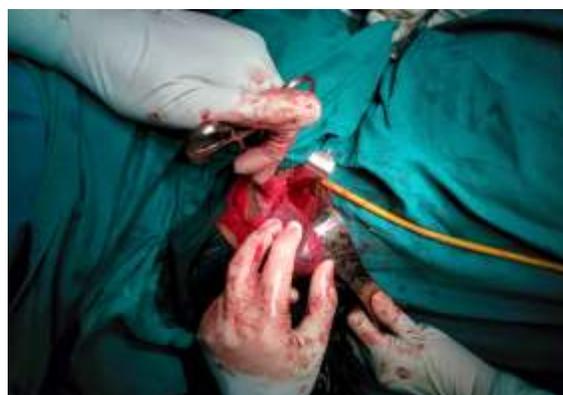


Fig.2. Vaginal Cyst with Pedicle during Dissection



Fig.3: Post-operative Picture after Excision of the Cyst

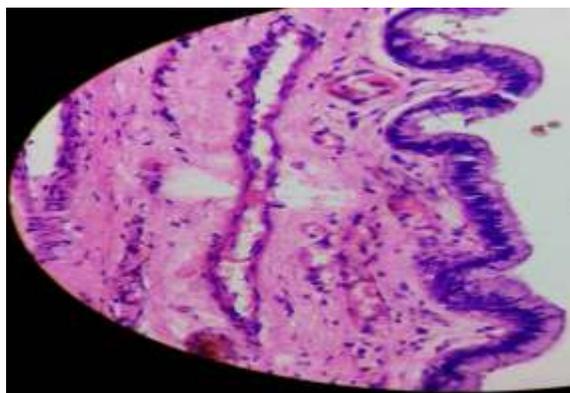


Fig. 4: Picto-micrograph of Cyst Wall Lined by Columnar Epithelium

Discussion

Mullerian cysts are embryological remnants of the paramesonephric (mullerian) ducts. These paired ducts extend caudally to reach the urogenital sinus at about 9 weeks gestation. Their lower ends fuse in the midline and develop into the uterus and

cervix, while the cephalic ends remain separate to form the fallopian tubes. Both the mullerian ducts and the urogenital sinus are believed to contribute to the formation of the vagina. During replacement of the mullerian epithelium with squamous epithelium of the urogenital sinus, mullerian tissue can persist anywhere in the vaginal wall, from which cysts may arise. The most common location is along the antero-lateral aspect of the vagina in relation to bladder where it may mimick a cystocele[1] but in present case it is of posterior vaginal wall origin.

Mullerian cysts are usually asymptomatic, but can present as mass per vagina, pain, dyspareunia and abnormal vaginal discharge [2] Posterior vaginal cyst can also present as enterocele[3]. Rashmi *et al* have reported a posterior vaginal cyst of Mullerian origin in a young woman who presented with enterocele. They usually are single but occasionally may be multifocal [4]. Imaging modalities like USG and MRI are useful in exact localization and also to know the number and communication with the surrounding structures.

Conclusion:

This is an unusual case of posterior vaginal Mullerian cyst in a premenopausal female. Proper evaluation of posterior vaginal wall cyst especially with regards to size and location requires good history taking and pelvic examination. They are best managed by surgical excision. Histopathology needed for confirmation of diagnosis.

References

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*Authors for Correspondence: Dr Preeti Chhallani, Department of Obstetrics and Gynecology, Terna Medical College, Nerul, Navi Mumbai- 400706 (Maharashtra) India Email: drpreeti29@gmail.com Cell: 9004670426