Rare disease

A rare case of posterior vaginal wall cyst

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Correspondence to Dr Sheela Jayaprakash, drvishwanathortho@yahoo.co.in**Summary**

A 42-year-old multi para, presented with a mass protruding from vagina since 1 year. The mass was cystic in nature arising from the posterior vaginal wall. It was insidious in growth, gradually increasing in size to 8×8 cm. Surgical excision of the cyst was done by sharp and blunt dissection. The cyst was filled with mucoid material and histopathology confirmed a mullerian cyst. Cystic lesions of vagina are relatively uncommon and they are an incidental finding during gynaecological examination. Mullerian cysts are congenital cysts of vagina, usually reported during childbearing age group. These cysts usually arise at the level of cervix and extend anteriorly in relation to bladder, but very rarely they may also extend posteriorly. This paper illustrates a rare case of large posterior vaginal wall cyst of Mullerian origin.

BACKGROUND

Cystic lesions of vagina are uncommon and they are usually an incidental finding during gynaecological examination. Vaginal cysts are classified according to their histology, depending on lining epithelium into the following types: mullerian cyst, Bartholin duct cyst, epidermal inclusion cyst, Gartner duct cyst, endometrioid cyst and unclassified variety.^{1 2} Among them Mullerian cyst constitutes 30%, Bartholin duct cyst 27.5%, Epidermal inclusion cyst 25% and remaining 17.5% is constituted by Gartner duct cyst, endometriotic cyst and unclassified type.³

This paper illustrates a rare case of large posterior vaginal wall cyst of Mullerian origin.

CASE PRESENTATION

A 42-year-old multi para came to our outpatient department with a history of mass protruding per vagina since 1 year. Initially, the mass was small in size and insidious in growth. There was no history of associated bowel and bladder disturbances. There was no history of increase in the size of the swelling on straining or lifting heavy weights.

Patient had undergone a spinal surgery 1 year back for backache. Her general and systemic examination was unremarkable. Local examination revealed a cystic mass of size 8×8 cm seen protruding from the vagina. Speculum examination showed the cystic swelling arising from the

Figure 1 Posterior vaginal wall cyst is seen separate from the rectal wall (finger is placed inside rectum).

Figure 2 Transvaginal sonographic image showing cyst located posterior to the cervix.

Figure 3 Dissection of cyst in progress.

posterior vaginal wall. Vaginal rugosities over the swelling were absent. Upper limit of the cyst was extending up to 1 cm below the posterior lip of the cervix and lower limit was extending up to the fourchette. There was no cough impulse in the swelling. Cervix was unhealthy (and was bleeding on touch).

Exact size of the uterus could not be made out on bimanual examination due to obesity. However, uterus was retroverted and no other adnexal mass could be palpated. On per-rectal examination, the cyst wall was separate from the rectal wall (figure 1).

INVESTIGATIONS

Transvaginal ultrasound showed normal sized uterus with an endometrial thickness of 6 mm. A clear cystic swelling was seen located posterior to the cervix, measuring 6x5.5x4 cm and volume of around 50 cc (figure 2).

Pap smear was done as a screening test and the report showed inflammatory smear, negative for intraepithelial lesion or malignancy. However cervical biopsy from unhealthy area was performed as a specific test that revealed chronic cervicitis with squamous metaplasia.

Figure 4 Picto-micrograph of the cyst wall, lined by columnar epithelium.

DIFFERENTIAL DIAGNOSIS

Differential diagnosis of a rectocele was considered and the same was ruled out by clinical examination as seen in figure 1. Enterocoele was ruled out as the cyst was located in lower one-third of posterior vaginal wall and there was no associated cough impulse. The location of the cyst also ruled out a Bartholin cyst, which is located in the postero-lateral aspect of vaginal wall, and a Gartner's cyst, which is located in the anterior or antero-lateral aspect of vaginal mucosa. The absence of pain and nature of the cyst ruled out an endometriotic cyst. Inclusion cysts of vagina are small cysts found at the lower end of the vagina, usually on the posterior surface, arising from inclusion beneath the surface, of tags of mucosa resulting from perineal lacerations or from imperfect approximation, in the course of surgical repair of the perineum, usually at episiotomy. Histopathology of the lining epithelium of the cyst wall will differentiate inclusion cyst from mullerian cyst.

TREATMENT

Patient underwent surgical excision of the cyst under general anaesthesia. A small vertical incision was made on posterior vaginal mucosa, and by sharp and blunt dissection the cyst was completely excised (figure 3). Care was taken not to injure the rectum. Cyst had a thin fibrous attachment to vagina in the upper part. Toward the end of surgery, the cyst ruptured accidentally and clear mucoid material was drained. Excess of vaginal tissue was excised and vaginal mucosa was closed with absorbable sutures. Patient made uneventful recovery and was discharged on third postoperative day.

The gross specimen of the cyst had smooth greyish white external surface with smooth inner wall which was covered with mucoid material. On histopathology, the cyst wall was lined by single layer of tall columnar cells with basal nuclei and mucin at the apex. At places, squamous metaplastic changes were seen. Subepithelial stroma was oedematous and showed few lymphocytes. The deeper region of the cyst was made up of smooth muscle bundle, fibrous tissue and few thick walled blood vessels. Impression –mullerian cyst (figure 4).

OUTCOME AND FOLLOW-UP

The patient was followed up for 1½ months and she remained asymptomatic.

DISCUSSION

Mullerian cysts are congenital cysts of vagina. Usually they are single but occasionally they can be multifocal.⁴ Vaginal cysts may be embryological derivative, ectopic inclusion tissue or may be due to urological abnormality.⁵ They are generally small in size and are reported during childbearing age group. The mullerian cysts arise at the level of cervix and extend anteriorly in relation to bladder, but very rarely they may also extend posteriorly.

Most mullerian cysts are asymptomatic, but may occasionally present as mass per vagina, dyspareunia, vaginal discharge and pain.

Our case is of a very rare large posterior vaginal wall mullerian cyst.

Learning points

- ▶ Vaginal wall cysts are very rare clinical finding and they are classified depending on lining epithelium.
- ▶ The differential diagnosis must include a rectocele, enterocele, Bartholin cyst, inclusion cyst and endometriotic cyst.
- ▶ Surgical excision of cyst should be carefully done to avoid injury to rectum.
- ▶ Mullerian cyst are the commonest congenital cysts of the vagina. They are usually reported during childbearing age group, usually located at the level of cervix and extend anteriorly in relation to bladder, but very rarely they may extend posteriorly, as reported in our case.

Competing interests None.

Patient consent Obtained.

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