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Case Report

Mullerian duct cyst mimicking cervical elongation

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ABSTRACT

Diagnosis of Mullerian duct cyst is determined by histopathological examination. Describe a case of a mass descending per vaginum in a 28-year-old lady that was originally misdiagnosed as an elongation of the cervix's anterior lip. Under anaesthesia, carried out surgical intervention that included complete excision of the mass via a vaginal route. Pathology result confirmed a benign Mullerian cyst histologically bordered by a single layer of ciliated columnar epithelial cells.

Keywords: Paramesonephric duct, Mullerian cyst, Misdiagnosis, Cervical elongation

INTRODUCTION

Mullerian ducts (or paramesonephric ducts) are named after Johannes Peter Müller (1801-1858), a pioneering German physiologist and comparative anatomist who described these ducts in his text "Bildungsgeschichte der Genitalien" in 1830. They are paired ducts of mesodermal origin in the embryo. They run laterally down the side of the urogenital ridge and terminate at the Müllerian eminence in the primitive urogenital sinus. In the female, they will develop to form the uterine tubes, uterus, and the upper portion of the vagina; in the male, the vestigial remnant is the appendix testis.¹

They commonly present as vaginal cysts in 3rd/4th decade of life. Here, we are reporting a unique case of a mullerian cyst leading mass descending per vaginum which is a very rare presentation. It initially looked like pelvic organ prolapse, and later, after clinical examination, a diagnosis of cervical elongation considered due to its location in anterior lip of cervix. However, it was finally confirmed as Mullerian cyst on histopathological examination.

CASE REPORT

A 28-year-old lady (P2L2) attended the obstetrics and gynaecology outpatient department with a nine-month

history of a mass descending through the vagina. It was associated with abnormal vaginal discharge. There were no abnormal symptoms of the bowel or the bladder, and there was no prior history of the swelling continuing to increase with work or while carrying heavy objects. She had no lower abdominal discomfort or the abnormal menstruation. Her systemic as well as the general examinations were remarkable. A mass was found at the level of the introitus during local inspection. Speculum examination showed the a mass of size 4×2 cm arising from the anterior lip of the cervix in continuation with it, up to the introitus. There was no cough impulse in the swelling.

Imaging

Transvaginal ultrasound (Figure 1) showed a circumscribed isoechoic mass noted extending from the cervical canal protruding externally, with cystic spaces and internal vascularity.

Patient was planned for the excision under the local anaesthesia. Complete excision the cyst was accomplished by the sharp dissection followed by the electrocautery. Gross specimen was grayish white as well as on cut section showed two nabothian cyst (Figure 2). Her post-operative recovery period was uneventful.

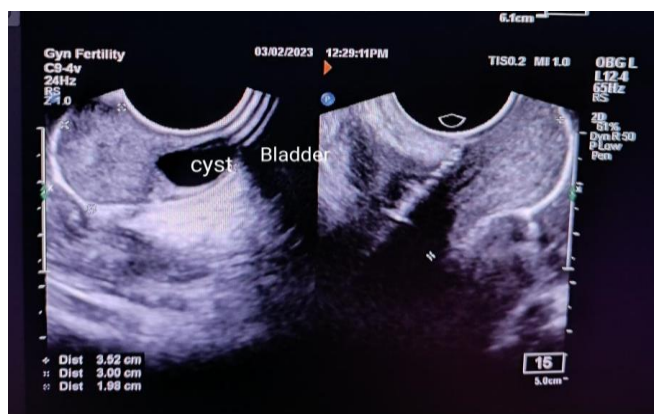


Figure 1: Isoechoic mass measuring 3.5×3×2 cm found in conjunction with the cervical canal.



Figure 2: Grey white tissue measuring 3.5×3×2 cm with surface showing grey brown area 0.7x0.7 cm.

Histopathology

Histopathology confirmed the diagnosis of Mullerian cyst which was lined by ciliated columnar epithelial cells and underlying subepithelial tissue shows fibrocollagenous stroma with congested blood vessels (Figure 3).

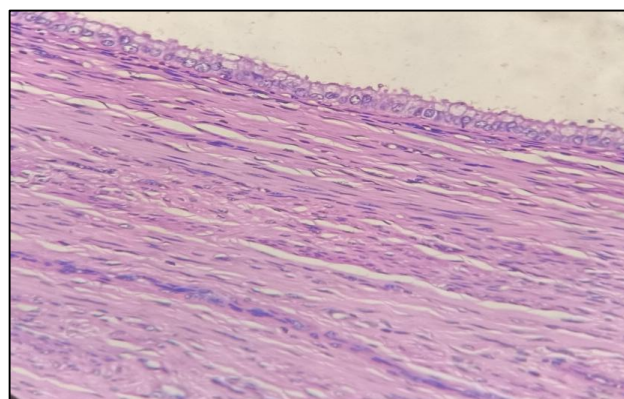


Figure 3: Microscopy showed cervix with pseudo stratified squamous epithelium and a cyst in the subepithelium with ciliated columnar epithelium.

DISCUSSION

Cysts that are formed from the Mullerian ducts may have histological patterns that are similar to any of the tissues that are often derived from this duct, primarily endocervical, tubal, or endometrial tissues. The majority of mullerian cysts have an endocervical (mucinous) lining.² While Mullerian cysts often have no symptoms, they can occasionally cause a lump in the vagina, discomfort, dyspareunia, and abnormal vaginal discharge.³ In our situation, the woman had mass per vaginam whose size had grown since her most recent delivery. During inspection, cervical elongation of the anterior lip was tentatively identified. There are several published reports of vaginal cysts imitating cystocele documented, only one of which had cervical elongation.⁴

A Mullerian cyst may occasionally enlarge to the point that symptoms need resection. Before undertaking surgery to remove the cyst if they are symptomatic, it is crucial to get as much preoperative information as you can about the cyst and the nearby tissues. Ultrasonography has the benefit of being a quick, affordable diagnostic method. MRI, on the other hand, provides good visualisation of the vagina, cervix, and surrounding tissue because to its high-contrast resolution and multiplanar capabilities.⁵ Ultrasonography in our situation was not decisive. As a result, we decided to intervene surgically and proceeded with the removal of the suspicious mass.

Histochemical analysis of epithelial mucin production is necessary for the differential diagnosis of Mullerian and Gartner's duct cysts. The epithelium of Gartner's cysts lacks cytoplasmic mucicarmine and PAS-positive material, in contrast to that of Mullerian cysts.⁶ In conclusion, this is a rare instance of a mullerian duct cyst imitating an elongation of the anterior lip of the cervix in a premenopausal woman.

CONCLUSION

This case study emphasises the necessity of correlating a physical examination to radiological findings. Only one case report that we are aware of reported a prolapsing vaginal mullerian cyst with cervical elongation that mimicked a cystocele. It is, however, impossible to say for sure whether the cyst appeared to be a cervical elongation or whether it was a mullerian cyst within a true elongation of the anterior lip of cervix.

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