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Case Report

Gartner duct cyst in pregnancy: a case report

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ABSTRACT

Gartner duct cysts are remnants of the Wolffian duct. They are located in the anterior or lateral wall of vagina and may be associated with renal and ureteral anomalies. We present a case report of 28 years old primigravida with 28 weeks gestational age with complaint of a mass protruding through vagina. A diagnosis of Gartner duct cyst was made by the location of the cyst, TVS and histopathological examination following excision of the cyst.

Keywords: Gartner duct cyst, TVS, Wolffian duct

INTRODUCTION

The internal urogenital tract is derived from two sets of ducts: the Wolffian ducts (mesonephric) and the Mullerian ducts (para mesonephric). In females, the paramesonephric ducts fuse distally during the 8th week of embryonic development to form the uterus, cervix and upper vagina. The Wolffian ducts regress. Persistence of Wolffian duct in vestigial form can lead to formation of Gartner cyst which is commonly located in right anterolateral wall of vagina.[1,2] True Gartner duct cyst are typically located along the anterolateral wall of proximal third of vagina in contrast to Bartholin cyst which are located in the posterolateral wall of lower third of vagina.[1,3] The differential diagnosis of Gartner duct cyst include cystocele, uterine prolapse, rectocele, Bartholin gland cyst, urethral diverticulum and malignant growth.[4]

CASE REPORT

A 28-year-old primigravida reported at 28 weeks of pregnancy in the antenatal OPD of our hospital with complaint of some mass protruding out of vagina. It was present prior to pregnancy but now has increased in size. On examination, a cystic swelling was present approximately 7 x 7 cm arising from anterior vaginal wall. The mass was pinkish in colour. A detailed history of the patient revealed that the mass was present prior to pregnancy but was small and asymptomatic. It had gradually increased in size during pregnancy. There were no complaints of dyspareunia, bladder or bowel disturbances. There was no history of trauma or any gynecological procedure. A per abdomen examination revealed uterine size corresponding to 28 weeks pregnancy with normal fetal heart sound. On local examination, a 7x7 cm pink cystic swelling was seen protruding from vagina (Figure 1).

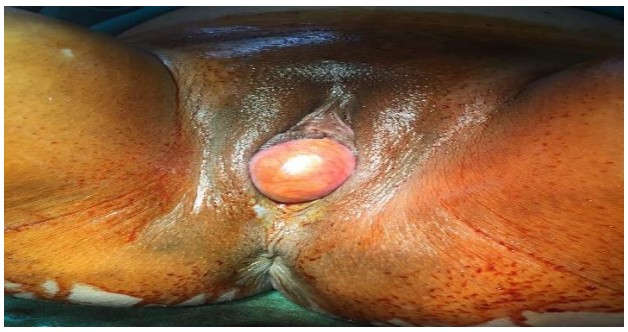

Figure 1: Large Gartner cyst.

A per speculum examination revealed the swelling to be arising from anterior vaginal wall. On palpation the mass was cystic in consistency and was 2 cm inside the introitus on anterior vaginal wall. It was non-tender with no cough impulse. Thus, a provisional diagnosis of Gartner duct cyst was made. Other differential diagnosis like Bartholin duct cyst, cystocele, enterocele, urethral diverticulum was ruled out.

A TVS and abdominal ultrasonography were done which showed a single live fetus with 28 weeks gestational age and thin walled cyst with anechoic content on anterior vaginal wall. Surgical excision of the cyst was planned. The cyst was excised from normal vaginal tissue. There was no connection between the cyst and urethra (Figure 2).

Figure 2: After cyst excision.

Post-operative period was uneventful. Pathological examination revealed the cyst to be lined with cuboidal and low columnar epithelium without mucinous formation consistent with the diagnosis of Gartner duct cyst.

DISCUSSION

Vaginal cysts have been classified according to the histology of cyst lining as epidermal inclusion cysts, embryonic (Mullerian or Gartner's cyst) and urothelial cysts.[5] They are commonly seen in women of childbearing age and are reported in approximately 1 in 200 females.[6] Gartner cyst occur as a result of total or partial obstruction of duct of Gartner. They are usually solitary, small and asymptomatic, however can grow further to cause lower urinary tract symptoms, dyspareunia, vaginal discharge due to rupture of cyst. The growth is most evident during pregnancy due to increased vulvar blood flow.[7]

The diagnosis of vaginal cysts is mainly through clinical and physical examination with MRI being the preferred imaging technique. On histopathological examination Gartner cyst are found to be lined by low cuboidal, non-mucinous cells with a layer of smooth muscle in the basal membrane.[8] Management depends on symptoms and desire of patient. In our case the cyst had significantly increased in size, patient was antenatal and cyst could have interfered with a normal vaginal delivery, so excision was planned. Other described treatment modalities are aspiration of the cyst and injection of 5% tetracycline solution, reserved only for small cysts.[9]

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