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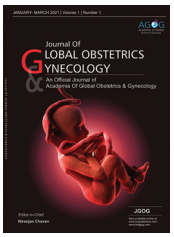
Case Report



# A Rare Case of an Infected Gartner Duct Cyst with Vault Prolapse in a Post Hysterectomy Patient

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## ABSTRACT

Vaginal inclusion cyst or Gartner duct cysts are usually small, i.e., <2 cm, but rarely they may be large enough to mimic uterovaginal prolapse, cystocele, rectocele, enterocele, Bartholin cyst, etc. We present to you a case of a large Gartner Duct Cyst with vault prolapse, cystocele, and rectocele in a post-hysterectomy patient. Confirmation of the diagnosis was done by the classical location of the cyst with appropriate clinical examination. The cyst and vault prolapse were managed surgically with an uneventful hospital stay.

**Key words:** Gartner duct cyst, Mesonephric duct, Vault prolapse, Wolffian duct, Vaginal mass

## INTRODUCTION

In females, the remnant of the caudal end of the mesonephric duct/Wolffian duct rarely forms a Gartner's duct cyst or vaginal inclusion cyst.[1-4] These benign cysts are usually <2 cm, and if larger, they usually present as a mass coming out per vaginum.[3-6] These cysts are otherwise usually asymptomatic.[4,6,7] A general examination reveals a non-reducible mass with an absent cough impulse.[8] Gartner's duct cysts are typically located in the anterolateral vaginal wall, following the usual course of the Wolffian duct.[1,8] Surgical excision is the usual mainstay of treatment, though it can be managed conservatively as well.[1,4,5] The diagnosis is confirmed with histopathology, which shows a cyst lined with a non-mucinous cuboidal or low columnar epithelium.[1,2,7]

## CASE REPORT

We report a case of a 38-year-old female, para 2 living 2 with previous two normal full-term vaginal deliveries, last childbirth 18 years ago, who presented at Cama and Albless hospitals outpatient department with complaints of something coming out of her vagina since 6–8 months. The patient had a past history of vaginal hysterectomy at a private hospital a year ago, details of which were not available. 2 months post-surgery, she noticed something coming out of her vagina, which was initially the size of a lemon and gradually kept increasing in size. She was referred by the private clinic to our hospital for further management.

On examination, the patient was vitally stable with normal general and systemic examinations. On per speculum examination, she had a grade 3 cystocele and a grade 2 rectocele with vault prolapse and a 10x10x8 cm non-reducible mass present on the right poster lateral aspect of the healed vault suture line. It was cystic in consistency with no cough impulse, and the trans illumination test was negative. The upper border of the mass couldn't be felt. Impression: vault prolapse with grade 3 cystocele and rectocele withan infected Gartner's duct cyst.

Her investigations were as follows:

- Hemoglobin - 13.5,
- Thin layer chromatography - 10.2 k,
- Plt - 250,
- Billi/serum glutamic-oxaloacetic transaminase/serum glutamic-pyruvic transaminase - 0.7/25/18,
- Creat - 1,
- Na/K/Cl - 136.5/11.2/101.6,
- Prothrombin time - 14.3,
- INR - 1.02,
- HHH - NEG,
- Fetal bovine serum -100.

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The patient was planned for cyst excision with cystocele repair in the 1st setting, followed by rectocele repair and sacrospinous fixation in the 2nd setting.

**The steps of the procedure were as follows**

1. The previous vault closure line was identified, and both angles of the closure were held with Allis forceps [Figure 1].
2. Gartner's cyst extent is identified: – A 10 × 10 × 8 cm cyst originating from the right posterlateral aspect of the vaginal wall [Figure 1].
3. A vertical incision was given over the vaginal wall covering the cyst, and the vaginal wall was separated from the cyst up to the base of the cyst, which was clamped.
4. CThe contents of the cyst were aspirated for optimum vision and easy accessibility of the base.
5. With a 30-gauze needle, almost 80 cc of thick greenish-yellow pus-like content was aspirated [Figure 2].
6. The base of the cyst was excised and ligated. The cyst was sent for a histopathology report, and pus-like content was sent for culture.
7. A separated vaginal wall was sutured, and hemostasis was achieved.
8. A cystocele repair was done.
9. Vaginal packing is done with a roller pack soaked in betadine.

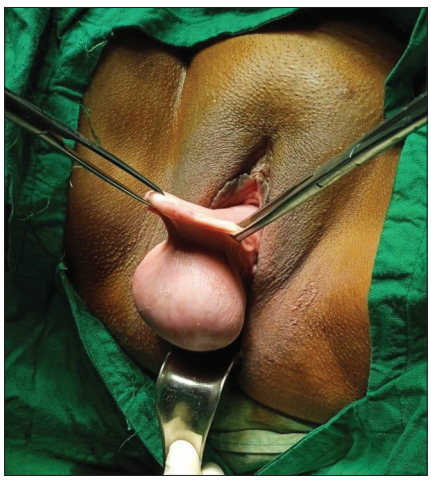

**Figure 1:** Gartner's cyst originating from posterolateral wall of vaginal wall

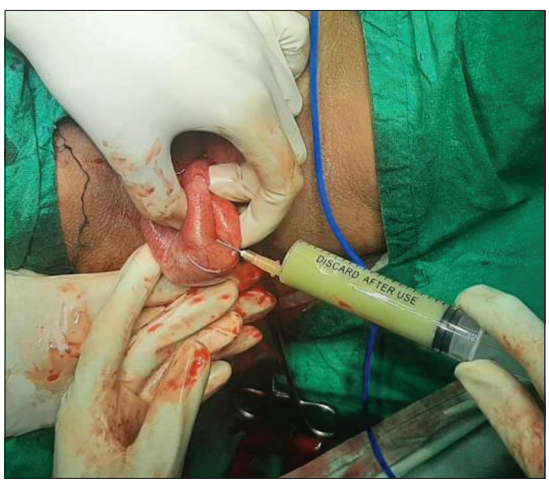


**Figure 2:** Pus aspiration from Infected Gartner Duct Cyst

Broad-spectrum antibiotics were given for 7 days. Rectocele repair with sacrospinous stitch was done after 2 weeks.

## DISCUSSION

In females, the Wollfian duct and mesonephric duct regress to form a vestigial system. Gartner's duct cysts are vaginal cysts that can develop along parts of the mesonephric duct when it fails to regress.[9,10] The remnants of the mesonephric duct are known as Gartner's duct.[11,12] Gartner duct cysts are usually located along the anterior and lateral parts of the vaginal wall and rarely on the posterolateral wall. Gartner's ducts are present in 25% of all adult women; however, only 1% will develop a Gartner's duct cyst. Gartner's duct cysts are congenital; however, they are not identified until adolescence or late middle age.[11-13] They are typically benign; however, malignant transformations have been reported.[1] Gartner's duct cysts are usually small, <2 cm, and asymptomatic; however, some cysts may enlarge and cause pressure symptoms, dyspareunia, or a mass coming out of the vagina, etc.[13] Gartner's duct cysts are commonly associated with congenital malformations of the urinary tract, for example, renal agenesis, ureteral diverticulum, ectopic ureter, etc.[14]

A general physical and local examination is sufficient for diagnosis. Ultrasonography and even MRI can be used on a case–by-case basis.[1,8] In our case, the patient was an operating case of abdominal hysterectomy with vault prolapse and a large Gartner's duct cyst. Gartner's cyst may have led to the exacerbation of the prolapse because of its pressure effects. Also, because of the previous operating history, maybe the location of the cyst was unusual due to disturbed anatomical planes, or it was a posterior wall Gartner's cyst, which is even rarer than the anterolateral vaginal wall cyst. The diagnosis was clinched with a proper, detailed examination. The cyst, which was huge in size and associated with vault prolapse, was managed surgically. Since the contents seemed pus-like, the rectocele and sacrospinous stitch were planned for a later second sitting. The patient had an uneventful hospital stay.

## CONCLUSION

Gartner's duct cysts, when large enough, present as a mass per vaginum and are a rare finding. Our case was unique since it was associated with vault prolapse in a post-hysterectomy patient. It is of clinical significance since it could have been exaggerated or been the primary cause of vault prolapse in this patient.

### Consent

This article was written with the full and explained consent of the patient.

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