

## Gartner Duct Cyst in An Adult Woman: A Case Report

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**Abstract:** Vaginal cysts are common in day to day clinical practice but being asymptomatic they rarely being reported. Mesonephric cysts are vestigial remnants of the Wolffian duct in female patients. While most of the mesonephric ducts degenerate, some remnants may persist in the mesovarium where they form the epophoron and paroophoron. Dignosis of Gartner cystis made with history and physical examination. Complete surgical excision of symptomatic cysts is the treatment of choice.

**Keywords:** Gartner cyst, vaginal cyst, Mullerian duct

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### I. Introduction

Vaginal cysts are reported in literature with very low incidences (approx. 1-2%) though; they are more common in clinical practice due to a large number of asymptomatic cases. These cysts may be either congenital or acquired. Congenital cysts may be derived from urogenital sinus (congenital vestibular cyst) or from mesonephric (Gartner duct cyst) or paramesonephric (Mullerian cyst) duct remnants (1). Of all vaginal cysts, 11% are on the account of Gartner cysts. Usual location of the cyst among the cases is anterior and anterolateral wall of vagina while rarely posteriorly located cysts are also reported previously (2).

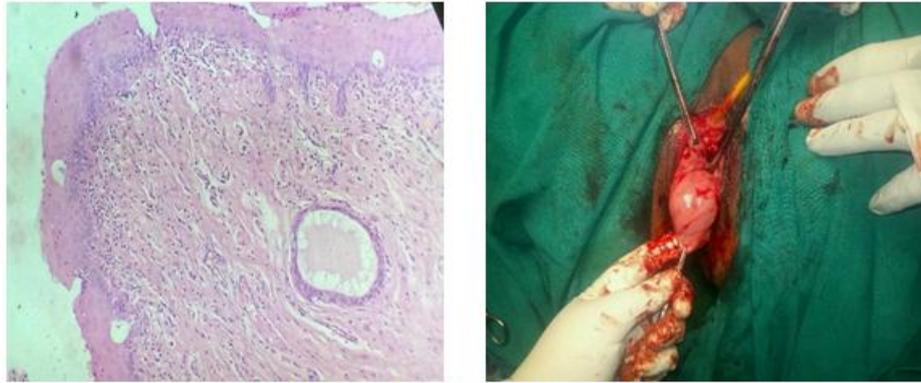
### II. The Case

A 35-year-old sexually active female presented with vaginal swelling and intermittent obstructive urinary symptoms since last 10 months. The swelling was painless, was noticed at a peanut size, gradually increasing to attain the present size and was associated with dyspareunia. There is no history of bloody or purulent discharge per vaginum. On examination, a cystic swelling was located at anterior vaginal wall, approx. 5cm × 4cm in size, was non-tender, soft in consistency, sessile, smooth surfaced without any sign of inflammation/fungation. Another cystic swelling located at postero-lateral vaginal wall approximate 6cm × 5cm in size, having similar clinical characteristics was also revealed on further examination (figure1). Examination of abdomen & regional lymph nodes was unremarkable. All the laboratory parameters were found to be within normal limits. On ultrasonographic investigation there were multiple suprapubic cysts with internal echoes suggestive of Gartner cyst (figure1). Surgical excision was planned for tretment. In lithotomy position both cysts were excised and dead space obliterated with absorbable sutures. Histo-pathological examination depicted cysts lined with cuboidal and low columnar epithelium with mild chronic lymphocytic infiltration consistent with diagnosis of Gartner duct cyst (figure 2). Postoperative recovery was uneventful and patient was discharged on day 3. One month, 6months and one year follow up was satisfactory without any symptoms.

### III. Figures And Tables



Figure 1 Depicting clinical and USG pictures of the cyst



**Figure 2** showing Intraoperative and pathological findings

### **I. Discussion**

During embryological development, the vagina develops from the paramesonephric duct, mesonephric duct and urogenital sinus. At the 6th week of intra-uterine life, the paramesonephric duct develops in the fallopian tubes, uterus and upper third of the vagina. The mesonephric duct advances from behind the perineum to the sidewalls of the vagina, where it involutes as the Gartner duct. As a result of total or partial obstruction of the persistent duct of Gartner encystation follows. Gartner cysts are frequently associated with various urinary tract developmental abnormalities like unilateral renal agenesis, renal dysplasia of varying severity and ureteral duplication; so, it is mandatory to rule out these conditions by prior evaluation of upper urinary tract with MRI. The cysts are of clinical importance because these may present with obstructive urinary symptoms like urgency or frequency of micturition and dyspareunia. Rarely, the cyst may present as clear vaginal discharge or bloody-brownish discharge per vaginum when there is an intra-cystic hemorrhage (3). A diagnosis of vaginal cyst is essentially clinical and can be made with history and meticulous physical examination but it is difficult to differentially diagnose the Gartner cyst from other cystic swellings of vagina (like Mullerian cyst, Skene's glands, epidermal inclusion cyst, Bartholin's gland etc.). Also, one should differentiate between solid and cystic swelling and define the characteristics of swelling with appropriate investigations like ultrasonogram/MRI. So, a histopathological examination of a cyst after excision is vital to establish the diagnosis of Gartner cyst. Treatment in adult patients consists of complete surgical excision of the cyst but marsupialization or aspiration and injection with tetracycline is also described for small cysts though usually insufficient in large cyst due to high chances of subsequent recurrences (4).

### **II. Conclusion**

History taking and a meticulous physical examination is essential to diagnose a vaginal cyst presenting with varied symptoms. To rule out malignant nature and for differentiation between solid/cystic swellings appropriate investigations like USG and MRI aid to reach the diagnosis. It is difficult to differentially diagnose the Gartner cyst from other cystic swellings of vagina (like Mullerian cyst, Skene's glands, epidermal inclusion cyst, Bartholin's gland etc.). Histo-pathological examination of the cyst after surgical excision is recommended to establish the final diagnosis. Prognosis is generally good and no recurrence is seen after complete surgical excision.

### **References**

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