



CASE REPORT: GARTNER'S DUCT CYST PRESENTING AS ABDOMINAL MASS

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ABSTRACT

Background: In both male and female genital organs develops from two duct systems, paramesonephric duct (mullerian) in female and mesonephric duct (wolffian) in males. In female destined embryo the mesonephric duct regress. There might be remnant of the mesonephric duct or Wolffian duct in females in of forms cyst called Gartner's duct cyst. Usually these cysts are asymptomatic, less then 2 cm in size. But sometimes these cysts grow larger in size arising from anterolateral wall of vagina and present with vaginal mass/ prolapse causes concern to patient as something coming out of vagina, dyspareunia and voiding disturbances. Diagnosis is made by pelvic examination and managed with vaginal cystectomy. **case:** This case is a case 42 years old female presented to OPD with complains of large abdominal mass, dull pain with vaginal fullness and foul-smelling pus discharge per vaginam which was manged by vaginal and abdominal cystectomy with hysterectomy for fibroid uterus after giving systemic antibiotic for 15 days. It was unusual and surgical management was a great challenge to us. **Conclusion:** On operating a big size Gartner's duct cyst, a well-planned route and extent of surgical procedure is required along with adequately arranged blood products as haemorrhage is a problem while excision because of close proximity to uterine and ovarian blood vessels.

INTRODUCTION

In females, absence of anti müllerian hormone (AMH) and SRY gene cause regress of wolffian ducts and further differentiation of Müllerian duct. Gartner duct cysts are cystic lesions arising from anterolateral wall of vagina and present as uterovaginal prolapse. They develop from the remaining parts of the Wolffian ducts that do not regress completely in individuals assigned female at birth. Wolffian duct or mesonephric ducts are remnant, present in nearly 25% of women and caudal portion of these cyst forms the vaginal inclusions known as Gartner duct cysts in 1% of cases out remnant cases.

Gartner's duct is usually asymptomatic and less than 2 cm in size but can present with bigger mass with complain of something coming out of vagina (uterovaginal prolapse), voiding disturbances and dyspareunia.

CASE

The patient presented to LNH gynae OPD with complain of large mass per abdomen associated with dull pain with vaginal fullness and complain of foul-smelling discharge per vagina. Patient was 42 year old P5 L 5 presented to

OPD with complain of large mass abdomen reaching up to just below umbilicus associated with dull pain abdomen, intermittent in nature, non-radiating, no postural variation since 5months with fullness in vagina and foul-smelling discharge per vaginam for 4 months. She had history of some intervention done in a private hospital through vaginal route causing infection of the cyst. Her menstrual cycles were regular with 3-4 days flow every 28-30days not associated with passage of clots or dysmenorrhea. Obstetric history: P5L5 Married for 25yrs, all full term normal vaginal deliveries at hospital without any complications. Bilateral tubal ligation done 12 years back.

On per abdomen examination a vague non tender mass around 12cm cystic to firm in consistency with smooth surface and regular borders reaching just below umbilicus felt but lower limit could not be appreciated. On per speculum examination, A pale pink cystic mass seen completely obscuring cervix. Cervix was high up in vaginam. The foul-smelling pus discharge seen coming out from the cyst.

On Per vaginal examination: A large cyst arising from right anterolateral wall of vagina felt which appears to extend alongside uterus of around 16 – 18 weeks gestation size, cervix was high up above pubic symphysis. Provisional diagnosis of infected Gartner's duct cyst was made. Patient admitted, all routine baseline investigations done.

On USG pelvis: Anteverted uterus with subserosal fibroid of approx. 5×4×5cm seen along right side of fundus and upper body region of uterus. A well-defined cystic lesion with internal echoes of approx. 10 × 10.8

cm seen in right paramedian region of pelvis with cyst wall thickness of 5mm. The cyst is seen posterior to urinary bladder and in infra-cervical region pushing cervix superiorly.

MRI pelvis: MRI confirmed fibroid uterus with hyperintense cyst arising from right vaginal wall of size approx. 10.2×10×8.1cm pushing cervix up behind pubic symphysis seen and provisional diagnosis of Gartner duct cyst was made. Figure -1 is showing the MRI findings of the cyst.

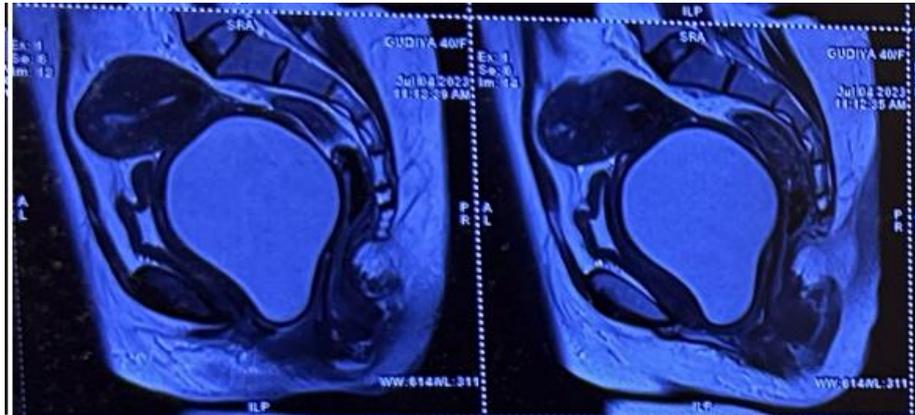


Figure 1: MRI showing extent of cyst from vagina to abdominal cavity lifting uterus up.

Patient planned for exploratory laparotomy and proceed with consent of hysterectomy for fibroid uterus and anticipating surgical difficulties and haemorrhage.

Procedure planned via both vaginal and abdominal route. Figure -2 showing the mass seen through vagina after pushing it per abdominally under anaesthesia.

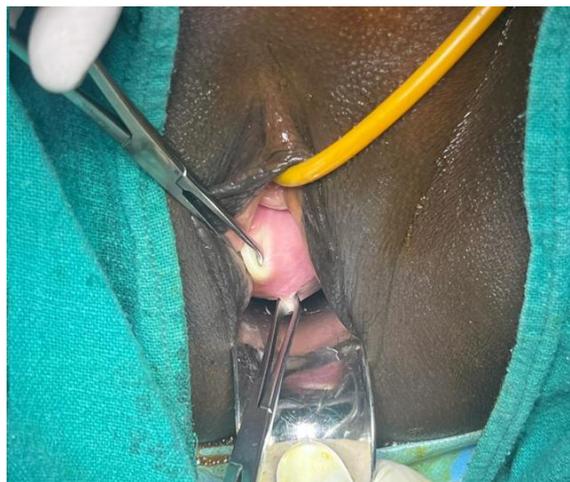


Figure 2: Gartner's cyst seen coming in lower vagina.

Intraoperatively 16-week size uterus seen with apex of mass extended up to cervix behind pubic symphysis. Procedure started from vaginal route draining approx. 500 cc thick pus from the cyst, followed by hysterectomy

via abdominal route. Cystectomy done via vaginal route after hysterectomy and excising it from broad ligament. On cystectomy a thick wall cyst was removed. The Hysterectomy specimen is shown in figure -3.

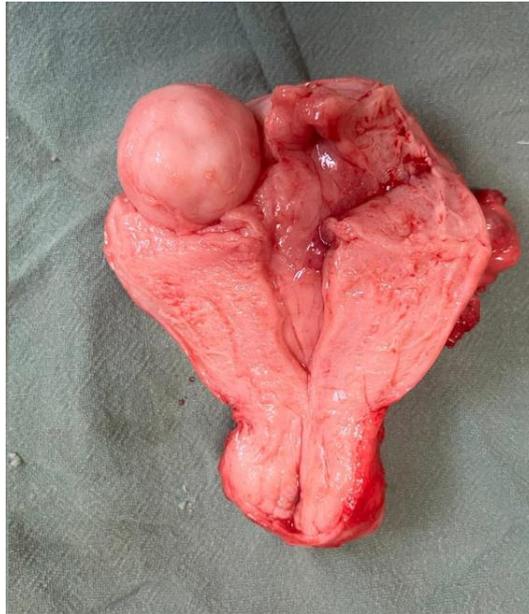


Figure 3: Hysterectomy specimen.

Pus sent for culture and sensitivity in which no organism isolated and ADA negative. Cytology showed necrotic squamous cells. Drain kept in Excision site postoperatively for 24 hours. Postoperative period uneventful. Patient was given IV antibiotics for 21 days. On HPE cyst wall lined by stratified squamous epithelium with oedema in sub epithelium seen.

DISCUSSION

Usually, Gartner duct cyst presents as asymptomatic vaginal masses of around 2 -3 cm and managed expectantly or excision if symptoms are there^[1,2] they can also present as uterovaginal prolapse.^[3] Malignant transformation is rare. Differential diagnoses include Bartholin's gland cyst or abscess, Skene's gland cyst or abscess, prolapsed urethra, prolapsed uterus, vaginal wall inclusion cyst, bladder diverticulum, ureterocoele, endometriosis, leiomyoma and malignant mass. Because the ureteral bud also develops from the Wolffian duct, Gartner duct cysts have been associated with ureteral and renal abnormalities like congenital ipsilateral renal dysgenesis or agenesis, crossed fused renal ectopia and ureters. Histopathological examination post-surgical excision helps in making the final diagnosis.

This case was different from other cases because of presentation as huge size abdominal mass coming up to vagina but no prolapse, as seen usually. Other different finding was the surgical difficulty in cystectomy and need of prolong IV antibiotic pre and post operatively. On HPE diagnosis of Gartner's cyst was made.

CONCLUSION

Though Gartner's duct cyst and usually small and simple excision is required if symptomatic but these cysts if big enough extending from vagina along the uterus can be a surgical challenge. A well planned route and extent of

surgical procedure is required before with adequately arranged blood products as haemorrhage is a problem while excision due to close its relation to uterine and ovarian blood vessels.

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