

GIANT GARTNER'S CYST PRESENTING AS ACUTE URINARY RETENTION AND SUBSEQUENT VAGINAL EXCISION OF THE CYST. A CASE REPORT.

Hypothesis / aims of study

To present a rare case of a giant Gartner's duct cyst. This case is unique not only because of the size of the lesion (~14 cm) but because the surgical management was delivered completely vaginally as well.

Study design, materials and methods

A 16-years-old, nulliparous, non pregnant, sexually active patient presented in emergencies department for severe lower abdominal pain and inability to urinate for the last 12 hours. Medical history was free, no medication apart from analgesics was taken recently. Surgical history involved an operation for bowel volvulus correction at neonatal life. Before the beginning of the symptoms the patient reported no relevant complaints ever. At clinical examination the abdomen had a large midline scar and a painful mass was located at the pelvis. Initial abdominal ultrasound indicated an overdistended urinary bladder and normal upper abdomen and kidneys. An indwelling catheter was inserted and the patient was dictated for further diagnostic imaging. A computed tomography was performed indicating another mass closely related to the uterus and the right ovary, and the diagnosis of endometrioma was initially set. The patient was referred for urogynecologic opinion and clinical examination revealed a cystic mass protruding through the vaginal orifice (resembling a grade 2 cystocele). Bimanual examination showed a soft mass extending from the introitus to the abdominal wall. A magnetic resonance imaging was asked and the diagnosis of a giant paravaginal cyst was presumed. The lesion was located between the urethra, the urinary bladder at the front and the vagina and the uterus at the back. The upper pole of the cyst was within the peritoneal cavity and the lower pole was within the introitus. No renal anomalies were revealed and the uterus was didelphys.

Results

Admission for surgical excision was arranged. The patient agreed for an initial vaginal approach (try of vaginal excision) because of the high risk of surgical complications due to the previous operation if an abdominal approach was elected. Under general anaesthesia and lithotomy position the operation involved the following steps: (1) initial grasping of the lesion below the urethra and circumferential incision, (2) gradual excision of the lesion en bloc applying traction cyclically in order to gradually free the lesion from the vaginal and the paravaginal tissues, (3) special attention was given at the dissection of the urethra initially and the bladder consequently, (4) at some point after the urethra has been pushed away, the cyst was unintentionally ruptured and a brownish, semi-transparent thick liquid was freed. The excision of the cyst was completed with gradual dissection of the neighbouring tissues. Intraoperative abdominal ultrasound confirmed the total removal of the lesion. Absorbable sutures were used to approximate the lateral walls of the cavity that was left after the excision of the cyst in order no free space to be left. The vaginal trauma was closed. A gauze pack was inserted into the vagina. The patient had uneventful postoperative course and after two days she left the hospital. A follow up a month later revealed no recessive lesion and the symptoms were completely resolved.

Interpretation of results

The mesonephric duct is an embryonic structure that is responsible for the development of epididymis, vas deferens, and the appendix epididymis in the male. In the female, although most of this duct degenerates, segments of its lower portion may persist along the vaginal axis. Sometimes, in this part of the duct (Gartner's duct), local enlargements which are known as Gartner duct cyst may be developed. The incidence of these cystic dilatations is estimated approximately 1% at clinical examination. Clinically, a Gartner's duct cyst is indistinguishable from other similar cysts as the paramesonephric cysts (which derive from the Muller's duct). The diagnosis is based on the clinical suspicion and recognition of a cystic mass in proximity to the vagina. Ultrasound shows a hypoechoic cystic mass with sharp delineation of its borders. Magnetic Resonance (MRI) shows an ovoid mass that may be septated, and is usually hyperintense to fat on T2-weighted sequences. Due to its high soft-tissue contrast and the possibility to obtain multiplanar images, MRI is by far the investigation of choice to determine the site of origin of a possible Gartner's duct cyst. Small asymptomatic lesions (<4cm) usually do not demand treatment. Larger lesions become symptomatic and the gynecologist is called to manage either conservatively (needle aspiration, marsipulization) or radically (surgical excision) in order to relieve the symptoms.

Concluding message

The Gartner's duct cysts can mimic other pelvic conditions and present with symptoms from the lower urinary tract. This case demonstrates the feasibility of vaginal approach in an extraordinary enlarged Gartner's duct cyst.

References

1. Abdomin Imaging 1995; 20: 566.
2. AJOG 2006; 195 :354.
3. IUJ 2010; 21:365.

Disclosures

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