

CASE REPORT

Gartner's Duct Cyst Impersonating Prolapse: A Case Report

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ABSTRAK

Benjol sista pada faraj adalah jarang berlaku dan prevalensinya mungkin kurang dianggarkan kerana kebanyakan sista faraj tidak dilaporkan. Ia dikategorikan berdasarkan ciri histologi sista tersebut. Sista duktus Gartner ialah sejenis sista tidak bahaya yang ditemui di faraj, berasal daripada duktus Gartner, iaitu struktur daripada duktus mesonefrik (duktus wolffian) pada wanita. Walaupun kebanyakan sista ini tidak bergejala, ia boleh dikenalpasti pada pesakit yang hadir dengan prolaps organ pelvis. Pengambilan sejarah perubatan yang terperinci, pemeriksaan fizikal yang menyeluruh dan pengimajian yang boleh dipercayai adalah penting untuk memastikan pesakit diuruskan dengan sewajarnya.

Kata kunci: Sista faraj; sista gartner; sista mesonefrik

ABSTRACT

Cystic lesions of the vagina are relatively rare, and their prevalence may be underestimated due to underreporting of vaginal cysts. These lesions are classified according to their histological characteristics. A Gartner's duct cyst, a benign variant, originates from the Gartner's duct, which is a remnant of the mesonephric duct (Wolffian duct) in females. While these cysts are predominantly asymptomatic, they may be identified in patients presenting with pelvic organ prolapse. A comprehensive medical history, meticulous physical examination, and accurate imaging are essential for ensuring appropriate management of affected individuals.

Keywords: Gartner's cyst; mesonephric cyst; vaginal cyst

INTRODUCTION

A Gartner's duct cyst is a benign vaginal cyst that originates from the remnants of the mesonephric duct (Wolffian duct) in females (Hoogendam & Smink 2017). This condition occurs in

approximately 1-2% of the population. Most Gartner's cysts are generally small, measuring less than 3 cm, and are typically located paravaginally in an anterior position. However, in rare cases, these cysts may be found on the posterior wall

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of the vagina (Khetarpal & Khetarpal 2022). While these cysts are often asymptomatic, the presence of symptoms can sometimes lead to a misdiagnosis of pelvic organ prolapse. This paper presented a case of a large Gartner's cyst that was initially misdiagnosed as a cystocele.

CASE REPORT

A 33-year-old woman, para 2, who had delivered vaginally four months prior, was referred to the outpatient gynaecology clinic for evaluation of a cystocele. She reported the presence of a vaginal mass for the past five years, with noted enlargement during pregnancy, which protruded from the introitus. The patient experienced no pain, although she reported discomfort during sexual intercourse. She was able to urinate normally, exhibiting a good flow without dysuria or urinary retention. Upon perineal examination, a left periurethral mass was identified, extending from the left periurethral space to the suburethral region, measuring 3 cm by 5 cm. The mass was non-tender and mobile (Figure 1A). The remainder of the examination was unremarkable.

A translabial perineal ultrasound was conducted, revealing a periurethral mass located

dorsal to the urethra, measuring 4.22 cm x 1.99 cm (Figure 1B & 1C). There was no indication of a urethral diverticulum, as the continuity of the urethral muscle was intact. Additionally, there was no evidence of pelvic organ descent.

The patient underwent an examination under anesthesia, which included cystoscopy and vaginal cystectomy performed under spinal anesthesia. The cystoscopy revealed no evidence of bladder or urethral diverticula. Following the cystectomy, the cyst wall was submitted for histopathological examination (HPE). At the six-week postoperative follow-up in the outpatient clinic, the HPE results indicated the presence of a solitary layer of non-mucinous cuboidal to lower columnar epithelium, consistent with a mesonephric benign cyst, specifically a Gartner's duct cyst. The patient exhibited satisfactory recovery and reported no additional complaints.

DISCUSSION

Cystic lesions of the vagina are relatively rare, with an estimated prevalence of 1 in 200; however, this figure may be an underrepresentation due to the fact that many vaginal cysts remain unreported. These lesions are classified according to their

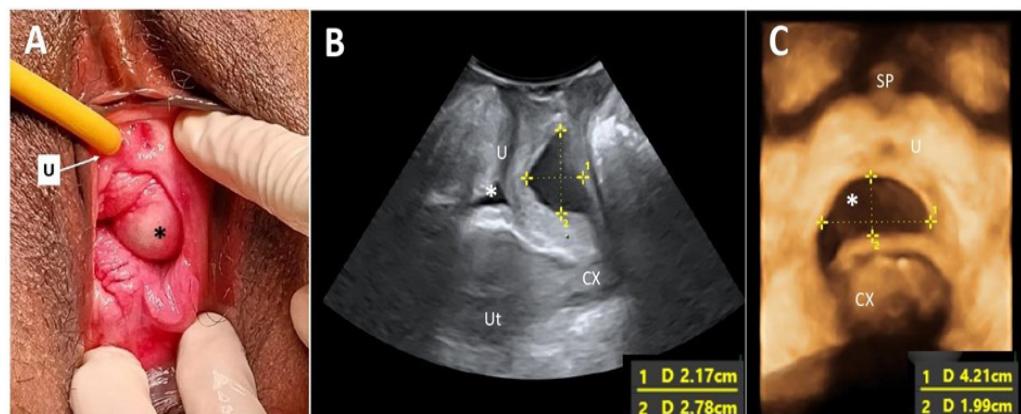


FIGURE 1: (A) A left periurethral mass extending from the left periurethral space to suburethral region measuring 3 cm x 5 cm; (B) Midsagittal view of the pelvic floor showing a cystic mass (*) dorsal to the urethra (U) measuring 2.17 cm x 2.78 cm on translabial perineal ultrasound (TPUS); (C) TPUS view demonstrating a periurethral mass dorsal to the urethra measuring 4.22 cm (width) x 1.99 cm (vertical dimension). (SP: Symphysis pubis; Ut: Uterus; CX: Cervix)

histological characteristics, which include epidermal inclusion cysts, embryogenic cysts (such as Müllerian or Gartner's cysts) and urothelial cysts (Lallar et al. 2015). Among these, Müllerian cysts and squamous inclusion cysts are the most frequently encountered, followed by Gartner's duct cysts and Bartholin gland cysts (Cheng et al. 2012). In the case of urothelial cysts, differential diagnoses may include urethral diverticula, urethral prolapse or ectopic ureteroceles (Lucioni et al. 2007). Additionally, other rare conditions that warrant consideration include vaginal endometriomas, fibromas and myomas.

Given the variable clinical presentations of this condition and the necessity to consider numerous differential diagnoses, a comprehensive history and physical examination are essential. Specific information may correlate with particular differential diagnoses; for example, a history of previous vaginal surgery or trauma may indicate the presence of an epidermoid inclusion cyst, whereas symptoms such as dysuria, post-voiding dribbling, or recurrent urinary tract infections may suggest the existence of a urethral diverticulum (Lucioni et al. 2007). In the aforementioned case, the patient presented with a complaint of a vaginal mass without accompanying urinary symptoms, which renders a diagnosis of urothelial origin less probable. During the examination, the characteristics and location of the cyst can provide valuable insights into its origin. Mullerian duct cysts are typically located in the proximal region of the vagina, while Gartner's duct cysts are frequently identified along the anterolateral aspect of the vaginal wall. Additionally, periurethral cysts may arise along the entire length of the urethra. Other significant findings, such as the presence of urethral discharge upon compression of the mass, may indicate the presence of a urethral diverticulum (Lucioni et al. 2007).

To facilitate the planning of subsequent management steps, it is essential to conduct comprehensive imaging to accurately identify the precise location, borders, number of cysts,

and their relationship with adjacent tissues. The imaging modalities available include ultrasound (US) through various approaches such as transperineal ultrasound (TPUS), transvaginal ultrasound (TVS), or endovaginal ultrasound (EVUS), as well as voiding cystourethrogram and magnetic resonance imaging (MRI). Among these, MRI is the preferred imaging modality, as it provides superior tissue characterisation and delineates the extent and origin of the vaginal mass, along with any associated urethral anomalies (Okeahialam et al. 2021; Tiwari et al. 2014). The increasing utilisation of pelvic floor ultrasound among urogynaecologists has emerged as a viable alternative for the diagnosis of vaginal cysts. US provides enhanced accessibility to imaging equipment and qualified healthcare professionals for interpreting results, while also offering reduced costs and fewer restrictions on patients. Research indicates that both 2D-TPUS and 3D-EVUS yield images that are consistent and comparable to those obtained via MRI. Consequently, these two imaging modalities may be employed interchangeably, contingent upon the availability of equipment and the requisite expertise (Okeahialam et al. 2021). In our case, we utilised TPUS, leading us to conclude that the mass is unlikely to originate from the urethra. This preoperative assessment is crucial, as it influences the choice of surgical approach.

Many vaginal cysts typically remain small and can be managed conservatively through regular monitoring, as they may resolve spontaneously. However, intervention in the form of drainage or surgical excision may be necessary if the cysts become symptomatic, presenting with issues such as pain, dyspareunia, voiding dysfunction, or significant size. Lesions that appear suspicious should be subjected to biopsy, as there have been rare instances of malignant transformation associated with Gartner's duct cysts (Bats et al. 2009). In the case presented, the patient underwent surgical management due to the considerable size of the cyst, which was palpable, particularly during straining, resulting in discomfort.

CONCLUSION

Vaginal wall cysts represent a rare clinical entity with a wide differential diagnosis. A comprehensive patient history, meticulous physical examination, and accurate imaging are essential to ensure appropriate management of the condition.

Conflict of interest: The authors declare no conflicts of interest.

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Ethical statement: Ethical approval was not required. Written consent was obtained from the patient.

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