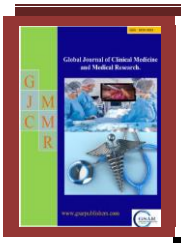

Global Journal of Clinical Medicine and Medical Research [GJCMMR]
ISSN: 2583-987X (Online)
Abbreviated key title: Glob.J.Clinic.Medici.Medica.Res.
Frequency: Monthly
Published By GSAR Publishers
Journal Homepage Link- https://gsarpublishers.com/journal-gjcmmr-home/

GIANT BARTHOLIN GLAND CYST

By

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Article History

Received: 11/01/2025
Accepted: 22/01/2025
Published: 24/01/2025

Vol –3 Issue – 1

PP: -06-08

Abstract

Introduction: *The Bartholin glands are a pair of mucus secreting glands located in lower 4 and 8 O' clock positions of vaginal introitus. Obstruction of duct draining the glands leads to abscess or cyst formation.****Case Report:*** *A 43-year-old female presented to the radiology department for imaging of a large vulval mass which had gradually attained giant size in the course of time. On physical examination, a large soft non tender cystic mass was seen protruding through the perineum.Patient had trouble while walking.* ***Material & Methods:*** *Patient underwent X ray examination and transperineal ultrasonography followed Magnetic Resonance Imaging which showed a large cystic mass without and septa or solid component.****Conclusion:*** *Giant Bartholin's gland cyst is a rare entity and is an important differential for cystic vulvar lesions in females. Imaging modalities can help differentiate Bartholin's cyst from other lesions.*

KEYWORDS: *Bartholin's cyst, Vulval masses, Imaging*

INTRODUCTION

Vulvar masses are often encountered in clinical practice.[1] Bartholin's glands are a pair of glands of about 0.5 cm in diameter located in the vulval vestibule with their duct opening at 4 O' clock and 8 O' clock positions between the hymen and labia minora.[2] Mainly these glands become active at puberty and secrete alkaline mucus for lubrication during the intercourse.[3] These glands are supplied by external pudendal artery with lymphatic drainage into the superficial inguinal and pelvic lymph nodes. Blockage of duct draining the gland leads to buildup of fluid. This results in formation of a Bartholin's cyst.Though development of a Bartholin's gland cyst or abscess is a commonly encountered entity(in 2% of women, incidence of giant cysts is relatively rare. [3]

CASE REPORT:

A 43 years old female presented with a complaint of a vulval mass since last 2-3 months which had grown into a giant size over due course of time. She was facing trouble while walking although no bowel or urinary complaints were reported.Patient had no history of any fever, vaginal bleeding, discharge or any STD.

Physical examination revealed a large mass hanging from left vulva measuring 16x14 cm in size with a few engorged vessels visible on its surface[Fig.1]. The lesion was soft and painless. Surface was smooth and regular with no ulceration noted. No significant inguinal lymphadenopathy or communication with the inguinal canal was found. Trans-illumination test was negative. On pelvic ultrasound uterus and bilateral ovaries were unremarkable.

Plain radiograph of pelvic region and thigh showed a large soft tissue mass hanging from the perineum in the midline interspersed between the soft tissues of thighs. [Fig.2]

Transperineal ultrasonography showed a large cystic mass measuring 15x12.7x9 cm in size with posterior good through transmission with coarse level internal echoes were seen completely filling the cystic mass. The wall of the lesion was thick without any crenation or irregularity. There was no evidence of any septae or wall calcification.[Fig.3] On color Doppler minimal flow was seen in the wall .[Fig.6]

MRI of the pelvic region revealed a large lobulated, pyriform shaped T2 and STIR hyperintense mass in the perineal region measuring 15.7 x 13.5 x 8.2 cm in size. On T1W images mass was slightly less hyperintense.[Fig.7] The lesion was seen

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arising from lower part of vagina at 4'o clock position below the pubococcygeal line.

DISCUSSION:

Bartholin glands cyst is often encountered in clinical practice. Due to infection or poor hygiene the duct draining the Bartholin's glands get obstructed causing built up of secretions.[4] Usually, the size ranges anywhere between 1-5 cm but giant Bartholin cyst are also reported although the incidence is rare. Occasionally these might get infected leading to abscess formation. In this kind of abscess, the S. faecalis, E. coli or S. aureus are often detected. Sexually transmitted infections like N. gonorrhea or C. trachomatis are rare. However, the majority of Bartholin's gland abscesses contain polymicrobial vaginal flora, including anaerobic microbes.[5,6] The most common etiology for Bartholin'scysts is trauma whereas in our there was no history of previous trauma to vulvar region.

Clinically the patient might present with complaint of mass in vulvar region, urinary complaints, tenderness with activities such as walking, sitting, standing, or sexual intercourse; purulent drainage; and history of previous Bartholin gland cyst/abscess. As in our case patient did give history of similar complaints in past for which she received treatment however no records were available.

On USG Bartholin's cyst presents as fluid filled lesion with posterior acoustic enhancement occasionally echoes septations or sediment might be noted. Surrounding tissue may appear echogenic in case of abscess formation.

On MR imaging, Bartholin's cyst shows a high signal intensity in T1W images and high or variable signal intensity on T2 W images as in our case cyst was hyperintense on T2 w images whereas was less hyperintense on T1 W images[7,8]. On post contrast images walls of the cyst will enhance incase infected.Moulopoulos et al reported 3of 8 patients with paravaginal cysts as low signal intensity on T1W images and 5 as high signal intensity on T1W with blood. However, no evidence of blood or any inflammation was detected in our case.

On CT, near the vaginal introitus, a hypo- to hyper-attenuating cyst is seen. The presence of solid component in the cyst will be a risk for neoplastic changes.

Vulvar masses are quite common in adult females these include epidermoid /epidermal inclusion cyst, Gartner's duct cyst, canal of Nuck cyst and vulvar malignant tumor, Bartholin's gland cyst, abscess or cancer.[9-11]

Gartner's duct cyst is located at or above symphysis pubis, in contrast to the Bartholin's cyst which lies below. Skene duct cyst is centered more anteriorly, closer to the external urethral meatus. Bartholin's gland abscess will show internal echoes with surrounding inflammatory tissue. On CDFI, increased vascularity is noted.

Patient underwent surgical excision of the cyst and histopathology revealed findings consistent with Bartholin's cyst.

CONCLUSION:

Giant Bartholin's gland cyst is a rare entity and is an important differential for cystic vulvar lesions in females. Imaging can help differentiate Bartholin's cyst from other lesions.

FIGURES & LEGENDS

Fig.1-Image shows the large Bartholin's duct cyst. A well-defined 15 x 13 cm mass, regular and moveable, located in the subcutaneous tissue of the left labia majora. Anteriorly the mass was seen reaching up to the clitoris, medially the mass was compromising the introituslateralizing the urethra. No ulceration was noted on its surface

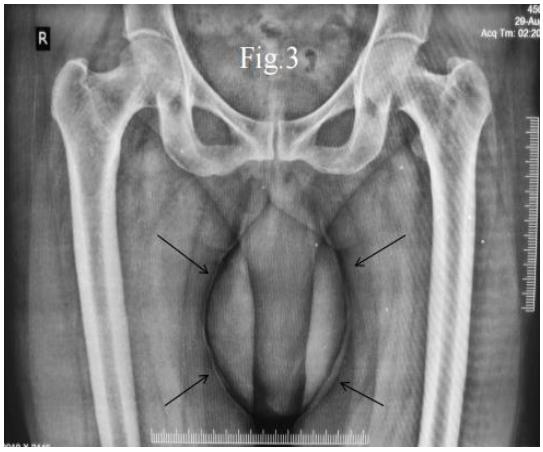

Fig.2-Radiograph of pelvis shows a soft tissue density interspersed between the thighs.

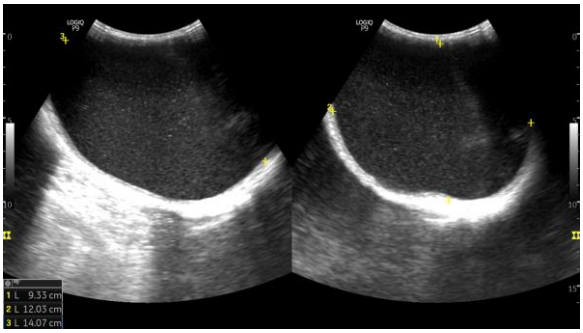

Fig.3-Trans perineal ultrasonography showed a large cystic mass measuring ~14 x 12 x 9.3 cm in size. Coarse internal echoes were noted.no internal septations or papillary projections were noted.

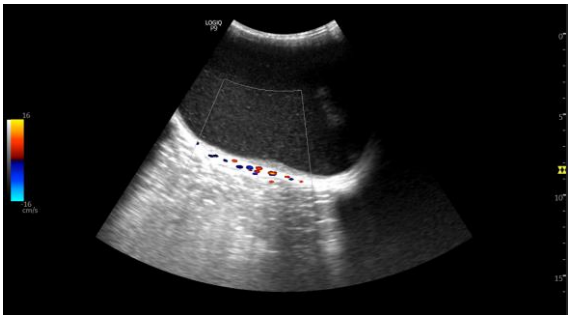

Fig.6-On CDFI, no significant internal vascularity was noted.Flow seen in the walls only.

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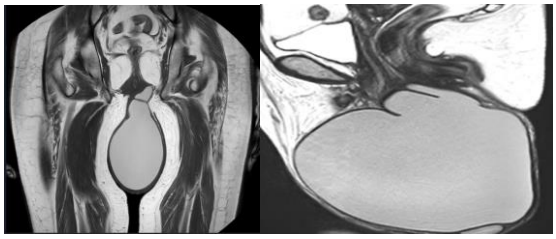

Fig.7-A large pyriform shaped cystic lesion is seen arising just below the level of pubic symphysis appearing hyperintense on bothT1W and T2 W images. The mass was hanging from the perineum arising at 4'o clock position.

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