

Content available at: <https://www.ipinnovative.com/open-access-journals>

Indian Journal of Obstetrics and Gynecology Research

Journal homepage: www.ijogr.org

Case Report

Dermoid cyst- An unusual location

Deepti N Mahoorkar^{1,*}, Anuradha Panda¹, Sianadh B.S.S², Mounika Reddy B¹

¹Dept. of Obstetrics and Gynecology, Apollo Hospital, Jubilee Hills, Hyderabad, Telangana, India

²Dept. of Surgery, Apollo Hospital, Jubilee Hills, Hyderabad, Telangana, India



ARTICLE INFO

Article history:

Received 10-10-2022

Accepted 09-11-2022

Available online 18-02-2023

Keywords:

Benign

Dermoid cyst

Paravaginal

Teratoma

ABSTRACT

Cystic lesions of vagina are not very rare. They are usually an incidental finding during gynaecological examination or present with localised pain, lump in the vagina or dyspareunia. The finding of a paravaginal dermoid cyst is rare in gynecology practice.

This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

1. Introduction

A dermoid cyst is a benign cystic lesion that arises from the entrapment of ectodermal and mesodermal elements. Histologically they are lined with stratified squamous epithelium with mature skin appendages found on their wall and lumen filled with keratin, hair, sweat and sebaceous glands and tooth. Common sites of occurrence are the ovaries in the reproductive age group, brain and para-nasal sinuses and scalp. Dermoid cyst in the vaginal wall is a rare finding in gynaecology.

2. Case Report

A 24-year-old nullipara presented to the outpatient department with an incidental finding of a right lateral vaginal cyst. Cyst in the right ischio-rectal fossa during evaluation for infertility. She had no symptoms of pain, feeling of a lump/ heaviness or dyspareunia. No history of previous vaginal surgery or trauma. On per speculum examination, a bulge was seen in the right lateral vaginal wall and the cervix was healthy. Pelvic examination

revealed a large 8x6cm soft, painless swelling in the right lateral vaginal wall 2cms from the introitus with depth not made out and extending up to the right fornix. Per rectal examination showed mass occupying right paravaginal space, lateral to rectum extending into right ischio-rectal fossa. Transvaginal scan showed a 74x56x60mm large well-defined hypoechoic lesion with thick internal echoes noted in the right ischio-rectal fossa. MR imaging revealed a well-defined cystic lesion measuring 74x55x45mm in the right ischio-anal and anterior perianal region. The lesion was causing significant elevation of right pelvic diaphragm and also causing compressive displacement of the urinary bladder neck (Figures 1 and 2). A diagnosis of right paravaginal cyst was made.

Transvaginal excision of the paravaginal cyst under general anesthesia was planned after preoperative workup. Bimanual pelvic and rectal examination was done again under anesthesia to confirm the extension of cyst. A 3cms long vertical incision was given on the right lateral vaginal mucosa overlying cyst. The cyst was separated from the vaginal mucosa by blunt and sharp dissection after infiltrating the mucosa with Dilute Adrenaline injection. Cyst was dissected from all sides. During deep dissection, the cyst wall got punctured releasing thick brownish yellow

* Corresponding author.

E-mail address: nmdeepti@gmail.com (D. N. Mahoorkar).

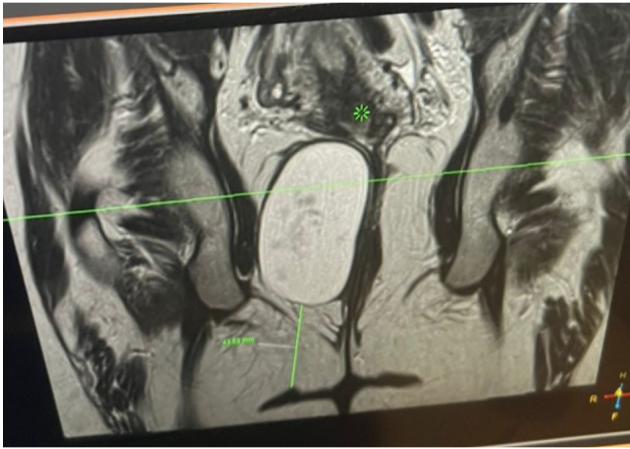


Fig. 1: T2 weighted image of the vaginal dermoid



Fig. 2: T2 weighted coronal section of the dermoid

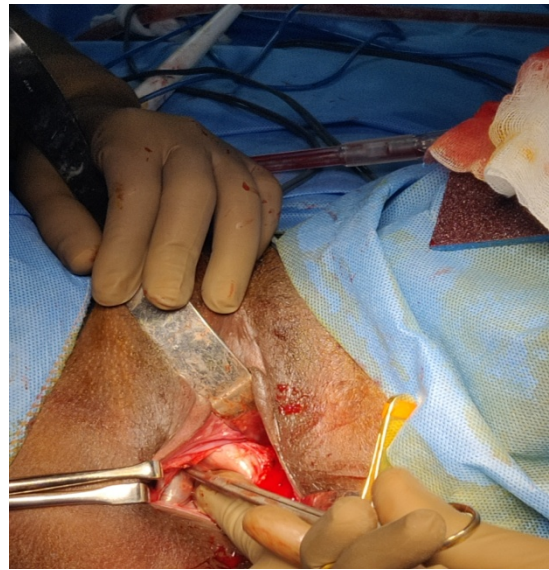


Fig. 3: Cyst wall being dissected



Fig. 4: Cyst with thick brownish yellow discharge

granular material looking like contents of a dermoid cyst. Cyst wall was excised completely, hemostasis secured and the dead space sutured (Figures 3, 4 and 5). Vaginal wall was sutured with Vicryl 3-0 and pack placed in the vagina to compress the dead space. The cyst was located in the lateral vaginal wall not extending beyond the superficial perineal muscles. Vaginal pack was removed after 48hrs.

Histopathology reported as cyst wall lined with stratified squamous epithelium showing well-defined granular layer. Abundant lamellated surface keratin seen. Cyst wall showed edematous stroma with few pilosebaceous units, occasional muscle fascicles also seen with features consistent with Dermoid cyst.

3. Discussion

Vaginal cysts are not a rare presentation in a gynaecology OPD. Patients may be asymptomatic and incidentally diagnosed during examination, have local pain or dysperunia. Vaginal cysts are classified according to the histology and based on the lining epithelium as:

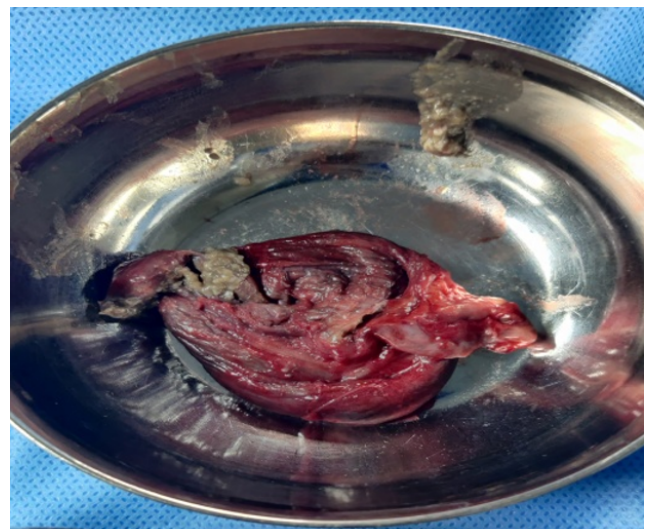


Fig. 5: Cyst wall after excision

mullerian cyst, bartholin cyst, epidermal inclusion cyst, endometrioid cyst and unclassified variety. Mullerian cyst constitutes 30%, bartholin cyst 27.5%, epidermal inclusion cyst 25% and remaining comprise the unclassified type which includes dermoid cyst.¹

Dermoid cyst has well differentiated derivatives of all three germ cell layers and is a benign tumour. The most common site for dermoid cyst are the ovaries. In 50% of the cases, it is seen in young girls and 80% of the dermoid cyst occur in the reproductive phase of life.² Dermoid cyst is seen in rare locations like the floor of the mouth till the colon in the gastrointestinal tract.³ Paravaginal location of a dermoid cyst is rare. They constitute less than 4% of all extragonadal teratomas. It was first observed by Stokes et al⁴ in 1899. Curtis et al⁵ described an ulcerated lesion containing hair and sebaceous glands in the vaginal mucosa.

Vaginal dermoid cyst is a well demarcated lesion from the surrounding vaginal tissue and the contents are heterogenic on transvaginal sonography.⁶ A vaginal dermoid cyst can be confused with other cystic lesions in the vagina like the epidermal inclusion cysts which usually occur after local trauma or the mullerian cysts.

Transvaginal excision of the cyst after an MR imaging to know the extent of the cyst is the appropriate line of treatment.^{4,7} Histopathology remains the gold standard in confirming the diagnosis.^{6,7}

4. Conclusion

Paravaginal dermoid cysts even though rare, should be considered as a differential diagnosis of a lateral vaginal wall cyst. Preoperative diagnosis may be difficult with transvaginal ultrasound or MRI in the absence of bone tissue or teeth. Excision under anaesthesia followed by histopathological confirmation remains the gold standard treatment. Complete resection of the cyst has excellent prognosis.

5. Source of Funding

None.

6. Conflict of Interest

The authors declare no conflicts of interest.


7. Ethical Approval

Not required.

References

1. Rashmi SA, Agarwal N, Guleria K, Yadav P. Vaginal mullerian cyst presenting as enterocele. *J Obstet Gynecol.* 2009;59(1):74–6.
2. Al-Shahrani MS, Heywood M. A rare case of vaginal dermoid cyst: A case report and review of literature. *Biomed Res.* 2006;17(2).
3. Fujita K, Akiyama N, Ishizaki M, Tanaka S, Ohsawa K, Sugiyama H, et al. Dermoid cyst of the colon. *Dig Surg.* 2001;18(4):335–7.
4. Stokes JE. The etiology and structure of true vaginal cysts. *Johns Hopkins Hosp Rep.* 1899;7:109–36.
5. Curtis AH. Transactions of Societies. Chicago Gynecological Society. *Surg Gynecol Obstet.* 1913;16:715.
6. Siu SS, Tam WH, To KF, Yuen PM. Is vaginal dermoid cyst a rare occurrence or a misnomer? A case report and review of the literature. *Ultrasound Obstet Gynecol.* 2003;21(4):404–6.
7. Sharma R, Rao KA, Nagraj S. A Rare Case of Vaginal Dermoid Cyst: A Case Report and Review of Literature. *Int J Infertil Fetal Med.* 2012;3(3):102–4.

Author biography

Deepti N Mahoorkar, Fellow in Minimal Access Gynaecology
 <https://orcid.org/0000-0002-2395-6940>

Anuradha Panda, Professor

Sianadh B.S.S, Consultant

Mounika Reddy B, Fellow in Minimal Access Gynaecology

Cite this article: Mahoorkar DN, Panda A, Sianadh B.S.S, Reddy B M. Dermoid cyst- An unusual location. *Indian J Obstet Gynecol Res* 2023;10(1):85-87.