

DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20232309>

Case Report

Dermoid cyst indenting bladder: a diagnostic dilemma

Neha Vashisth, Pragati Meena, Seema Meena, Richa Choudhary*

Department of Obstetrics and Gynaecology, JNU Institute for Medical Sciences and Research Centre Jaipur, Rajasthan, India

Received: 20 May 2023

Accepted: 07 July 2023

***Correspondence:**

Dr. Richa Choudhary,

E-mail: drrichachoudhary@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

A dermoid cyst is a benign cutaneous developmental anomaly that arises from the entrapment of ectodermal elements along the lines of embryonic closure. These benign tumors are lined by stratified squamous epithelium with mature skin appendages found on their wall and their lumens filled with keratin, hair, teeth etc. They are usually benign in nature. Mature ovarian dermoid cysts are very common accounting for 25% of all benign ovarian neoplasms. Uncomplicated dermoid cysts are usually asymptomatic and easy to diagnose on imaging. Presentation of dermoid cysts are extremely rare in the urinary bladder and it is a diagnostic challenge to the gynecologist, pathologist and urologist. Only few cases are found and documented till now. We present an extremely rare case of dermoid cyst involving bladder in a 29 year old female who presented with chief complaint of pain abdomen associated with passage of hair through the urine since 2 months. Her cystoscopy showed presence of hair and caseous material on the surface of the lesion.

Keywords: Dermoid cyst, Cystoscopy, Cystic teratoma, Fat, Hair, Urinary bladder

INTRODUCTION

Dermoid cysts consist of tissue from more than one germ cell layer most commonly in the ovaries but also found at other sites like in midline and para-axial locations. However, the occurrence of dermoid cyst in urinary bladder is very rare entity. Most widely accepted theory of pathogenesis suggests an origin from primordial germ cell. Pathogenic idea is currently most frequently recognized explanation for the etiology of dermoid cysts and proposes origin from primordial germ cells. Teratomas have many histological types, with mature cystic teratomas being the most prevalent (also known as dermoid cyst). It typically consists of sweat glands and skin, with other frequently occurring elements include pockets of sebum, blood, bone, nails, eyes, and cartilage. Since there have only been a few cases documented in the literature. We present a case of a left ovarian dermoid cyst that involved the bladder dome and discuss the ultrasound, computed tomography, and cystoscopy results of the same. These tumors have an

excellent prognosis following surgical excision if they are identified early and diagnosed properly.

CASE REPORT

A 29-year-old female weighing 50 kg presented to gynae OPD with chief complaints of pain in left flank and passage of hair in the urine for the past two-three days. The pain was dull aching in nature, present in the left flanks and increased in severity from mild to moderate, and was non radiating, and had no aggravating and relieving factors. The patient did not report any fever or other urinary problems. She had cesarean section 11 months back in view of nonprogress of labor. She gave history of lump in lower abdomen before pregnancy. Her general and systemic examinations during the clinical examination were within the normal range. An abdominopelvic ultrasound scan revealed that dermoid cyst of 9×7 cm.

On examination, patient had a large mass of 14-16 weeks size. Her P/S examination findings were- cervix was

pulled up and deviated to right side. On her P/V examination-Left side fornix fullness present and lump of 14-16 weeks in size, hard in consistency was felt. Hence a laparotomy was planned and proceeded for same.

Her intra-op findings-Dense adhesions present between ovary and omentum, and omental caking was also present. A furious-looking 10×10 cm left dermoid cyst was found in left ovary and therefore left side oophorectomy done. Ovarian tissue with omentum sent for histopathological examination to rule out immature teratoma. Cyst wall further separated from surrounding tissue, and at extreme lower pole, tunnel-like opening was discovered, leading to suspicion that cyst was communicating with the bladder. At that time, massive 200-300 CC of caseous material discovered in urobag, prompting need for cystoscopy and therefore urologist was called.

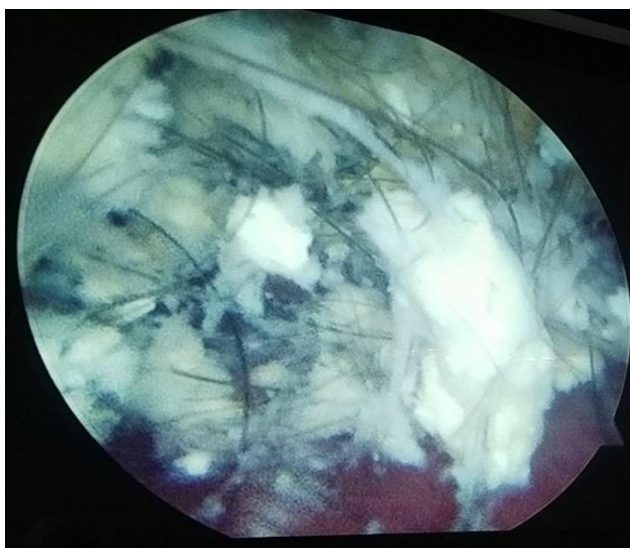


Figure 1: Cystoscopy image.



Figure 2: Intraoperative image.

On cystoscopy, the entire bladder was filled with caseous material and hair (Figure 1). Due to indentation of dermoid cyst in the bladder, bladder rent was formed and bladder needed to be repaired. So, lavage was done and rent was confirmed, in which hair and caseous material was lodged

and it found communicating with abdominal end. Margins exhibited inflammatory changes, therefore refreshing of margins done and repair of bladder rent was done by using pyriformis muscle and omental flap. Washing with normal saline done and caseous material and hair removed. Continuous bladder irrigation done for 48 h (Figure 2) Before closure; abdominal drain was placed. Catheterization was done for 21 days and patient had uneventful follow up period with resolution of pain and presence of hair in urine. Histopathology report was confirmed for benign dermoid cyst.

DISCUSSION

Midline teratomas presumably result from abnormal germ cells when the neural tube closes at about the 3rd to 5th week of embryonic life.^{1,2} A dermoid cyst in the bladder is an extremely uncommon "tumor".³ Only five cases were documented and cited in the literature that we could find.^{4,8} They frequently include calcified material and hair.⁴ They could also be related to vesical stones and bladder diverticula.⁵ Skin, skin adnexal structures (sweat glands, hair follicles), adipose tissue, and fibroblastic tissue were all confirmed by histology. This finding is important in that it enters the differential diagnosis of bladder mass, and the patient as well as the surgeon can be reassured since it is benign and will not need further treatment.

CONCLUSION

Although dermoid tumour in the bladder are exceedingly uncommon, they should be considered as a differential diagnosis for bladder masses.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Crum CP. Female Genital Tract-ovarian tumors. In: Kumar V, Abass AK, Fausto N, editor. Robbins pathologic basis of disease. 7. Philadelphia: Saunders, Elsevier. 2004;1099-110.
2. Linder D, McCaw BK, Hecht F. Pathogenetic theory of benign ovarian teratomas. New Engl J Med. 1975;292:63-6.
3. Eble JN, Young RH. Tumours of the Urinary Tract. In: Fletcher CDM, editor. Diagnostic histopathology of tumours. 2. Philadelphia: Churchill Livingstone. 2001;547.
4. Cauffield EW. Dermoid cysts of the bladder. J Urol. 1956;75:801-4.
5. Lazebnik J, Kamhi D. A case of vesical teratoma associated with vesical stones and diverticulum. J Urol. 1961;85:796-9.
6. Sabnis RB, Bradoo AM, Desai RM, Bhatt RM, Randive NU. Primary benign vesical teratoma. A case report. Arch Esp Urol. 1993;46:444-5.

7. Misra S, Agarwal PK, Tandon RK, Wakhlu AK, Misra NC. Bladder teratoma: a case report and review of literature. *Indian J Cancer.* 1997;34:20-21.
8. Agrawal S, Khurana N, Mandhani A, Agrawal V, Jain M. Primary bladder dermoid: a case report and review of the literature. *Urol Int.* 2006;77:279-80.

Cite this article as: Vashisth N, Meena P, Meena S, Choudhary R. Dermoid cyst indenting bladder: a diagnostic dilemma. *Int J Reprod Contracept Obstet Gynecol* 2023;12:2556-8.