



Genital filariasis presenting as a vaginal wall cystic lesion

Prasanna Ghimire^{a,*}, Pragma Gautam Ghimire^b

^a Department of Radiology, Nepalgunj Medical College and Teaching Hospital, Banke, Nepal

^b Department of Pathology, Nepalgunj Medical College and Teaching Hospital, Banke, Nepal



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ABSTRACT

Vaginal cystic lesions are rare incidental findings detected during physical examination and imaging. To our knowledge, filariasis as a cause of vaginal cystic lesions has not been previously reported in the English literature. We present vaginal cystic lesion which posed diagnostic dilemma and was confirmed on cytology to be filarial in etiology. The patient was treated with single-dose of oral diethylcarbamazine and the lesion subsided on follow up scans at three months thus avoiding inadvertent surgeries.

Vaginal cystic lesions are rare entities and have multiple etiologies. A high degree of suspicion for filariasis as cause of vaginal cystic lesions should be made in individuals hailing from or have history of travel to endemic regions of filariasis.

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Introduction

Vaginal cystic lesions are rare clinical entities often presenting as incidental findings on pelvic examination and imaging studies [1]. The majority of the lesions are either Mullerian cyst, Bartholin cyst, Gartner duct cyst or epidermal inclusion cyst [2,3]. Although, genital filariasis is known to have a spectrum of clinical presentation, a parasitic cause of vaginal cystic lesion due to filariasis has not been reported previously in the English literature [4]. Our patient was diagnosed to have vaginal cystic lesion of filarial origin which was managed medically with antifilarial drugs. This finding highlights the necessity to have a very high index of suspicion for a possibility of filariasis in individuals presenting with cystic lesion in individuals residing or have history of travel to filariasis endemic regions and decreasing morbidity avoiding unnecessary surgical interventions.

Case presentation

A 25-year-old Chhetri multipara female presented with vaginal bleeding following medical termination of pregnancy of three months of amenorrhea. A pelvic examination was performed and an incidental posterior vaginal wall cystic lesion which was glistening was noticed (Fig. 1). Rest of the genitalia was normal. On general physical examination, there were no signs of

anemia, icterus, cyanosis, clubbing or lymphadenopathy. Vitals were within normal limits. The other medical history was irrelevant.

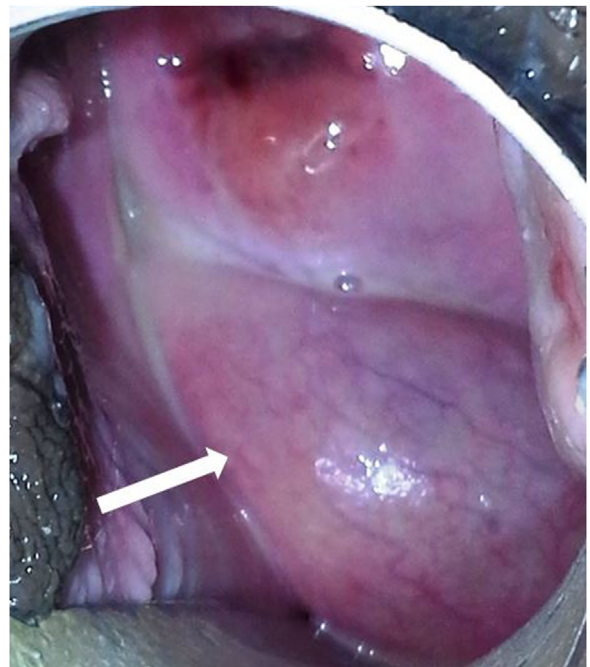


Fig. 1. Vaginal speculum examination demonstrates an ill-defined cystic lesion in the posterior fornix.

* Corresponding author at: Department of Radiology, Nepalgunj Medical College and Teaching Hospital, Banke, Nepal.

E-mail addresses: drprasannaghimire@gmail.com (P. Ghimire), drpragya@gmail.com (P.G. Ghimire).



Fig. 2. Transvaginal sonography demonstrates anechoic cystic lesion in the posterior wall of the vagina abutting the cervix.



Fig. 3. *Wucheria bancrofti* in a background showing degenerate cellular material (Giemsa stain x 40).



Fig. 4. High power view of the worm showing sheathed, gently curved body and a pointed tail (white arrow). The nuclear column does not extend to the tip of the tail. Background shows degenerate material. (Giemsa stain x 100).

An ultrasound was then performed which demonstrated minimal echogenic content within the endometrial cavity suggestive of retained products of conception as well as an anechoic cystic lesion in the posterior vaginal wall measuring 4.2 cm x 3.8 cm (Fig. 2). Color Doppler interrogation did not demonstrate vascularity within the lesion. Aspiration of the cystic lesion was done that yielded turbid brownish aspirate. Smear examination demonstrated multiple worms identified as *Wucheria bancrofti* in a background showing degenerate cellular material (Figs. 3 and 4). Hematological investigations demonstrated microcytic hypochromic anemia with hemoglobin of 11.2 mg/dL. Liver function tests, renal function tests, chest radiographs were within normal limits. Patient was then treated with single-dose of oral diethylcarbamazine (300 mg) and the cystic lesion disappeared on follow up ultrasound scan at three months.

Discussion

Cystic lesions of the vagina are rare clinical entity and are usually incidental findings during pelvic examination and ultrasonography [1,3]. The commonest vaginal cystic lesions are Mullerian cyst, Bartholin duct cyst, epidermal inclusion cyst and Gartner duct cyst [2,5]. To our knowledge, parasitic etiology of vaginal cysts due to filariasis has however not been documented in the English literature. In this case report, we documented filariasis as the cause of vaginal cystic lesions which was diagnosed on cytology. Furthermore, the cystic lesion disappeared on medical treatment with oral diethyl carbamazine thus avoiding inadvertent surgeries.

Conclusion

Filariasis is endemic in many parts of the world and genital filariasis has a spectrum of clinical presentation in males and females. Although, vaginal cystic lesions due to filariasis as the cause has not been reported previously, our findings warrants a necessity to exclude possibility of filariasis as cause of vaginal cystic lesion in individuals hailing from or having history of travel to filariasis endemic region.

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Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

Authors' contributions

PG interpreted the radiological findings, patient data and was a major contributor in writing the manuscript. PGG interpreted the cytological findings, patient data and was a major contributor in writing the manuscript. All authors read and approved the final manuscript.

The author(s) declare that they have no competing interests.

CRediT authorship contribution statement

Prasanna Ghimire: Investigation, Writing - original draft.
Pragya Gautam Ghimire: Investigation, Writing - review & editing, Supervision.

Declaration of Competing Interest

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