

Vaginal rhabdomyoma: a case report of an uncommon and misleading neoplasm

S. ATTAFI, N. BOUJELBENE, I. ABBES, R. DOGHRI, N. BEN HAMIDA, R. GHORBEL, L. CHARFI, M. DRISS, K. MRAD
Department of Pathology, National Institute of Oncology Salah Azaiez, Tunis, Tunisia

Key words

Rhabdomyoma • Vagina • Genital • Vaginal polyp

Summary

Vaginal rhabdomyoma is an extremely rare tumor which presents as a vaginal polypoid masses. It is essential to differentiate it from benign and malignant mimickers so that appropriate therapy may be provided. The present report describes a vaginal wall nodule

of a symptomatic 24-year-old woman. Local excision and subsequent pathological examination were performed. The final diagnosis was vaginal rhabdomyoma. The literature is reviewed and differential diagnosis are discussed.

Introduction

Rhabdomyoma is a benign mesenchymal tumor originating from striated muscle tissue. It is rare, representing less than 2% of all striated muscle tumors and is classified into cardiac and extracardiac types¹. Among the extracardiac rhabdomyomas, three categories can be individualized: adult, fetal and genital rhabdomyoma². The vaginal rhabdomyoma belongs to this last category and is extremely rare with less than 30 cases reported in the literature². The distinction from the other varieties of rhabdomyomas is based on its different clinical and histological features. The diagnosis of rhabdomyoma should be taken into consideration in front of a vaginal polypoid mass.

We report below a case of a genital rhabdomyoma arising in the vagina of a 24-year-old woman. The clinicopathological features of this entity and its differential diagnosis will be discussed.

Case report

A 24 year-old nulliparous and nulligeste woman, consulted on gynecology for feeling of genital heaviness without menstrual disorders. There were no associated urinary or gastrointestinal symptoms. The patient's past medical history was not significant. Physical examination revealed a vaginal wall nodule. A local excision was performed. Gross examination found polypoid,

firm, mucosacovered formation which measured 1.5 x 0.8 x 0.5 cm. Microscopic examination revealed polypoid lesion covered by a normal, squamous, non-keratinized epithelium consistent with vaginal mucosa (Fig. 1). Within a loose connective stroma, we find a spindle-shaped tumor cells with abundant eosinophilic cytoplasm containing a cross-striation (Fig. 2). The nucleus was vesicular, regular, with visible nucleolus. Cellular atypia and mitotic activity were absent. The diagnosis of vaginal rhabdomyoma was retained.

Discussion

The vaginal rhabdomyoma is extremely rare. Less than 30 cases were reported in the literature^{1,2}. As all genital rhabdomyomas, it is characterized by an advanced skeletal muscle differentiation. Its etiopathogenesis still unknown. This tumor arises almost exclusively in middle-aged women with a mean age of 42 years². Clinically, this lesion is often asymptomatic, found incidentally on routine physical examination. In some cases, patients can present dyspareunia, vaginal bleeding or signs of compression of the urinary tract³. On physical examination, the tumor presents as a polypoid or cyst-like mass, reddish-brown or grayish with a mean size of 2 cm^{3,4}. The diagnosis is purely made by histological examination which shows a mass covered by a non-keratinizing squamous epithelium. It consists of scattered muscle

Correspondence

Boujelbene Nadia, Department of Pathology, Salah Azaiez Institute, Boulevard 9 Avril, 1007, Tunis, Tunisia - Tel. +216 97 498087 - Fax: +216 74 611571 - E-mail: boujelbene_naddou@yahoo.fr

Fig. 1. Polypoid lesion covered by a normal, squamous, non-keratinized epithelium (HE×40).

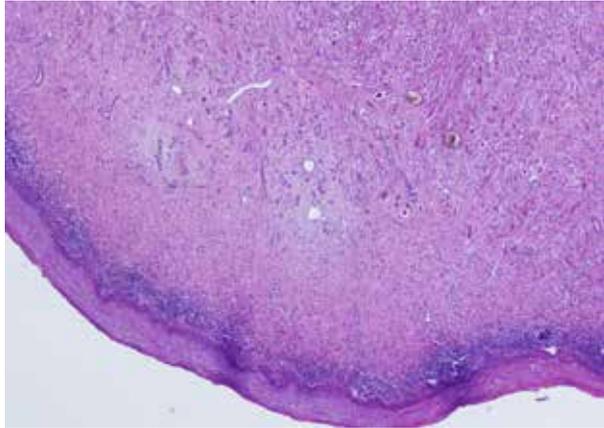
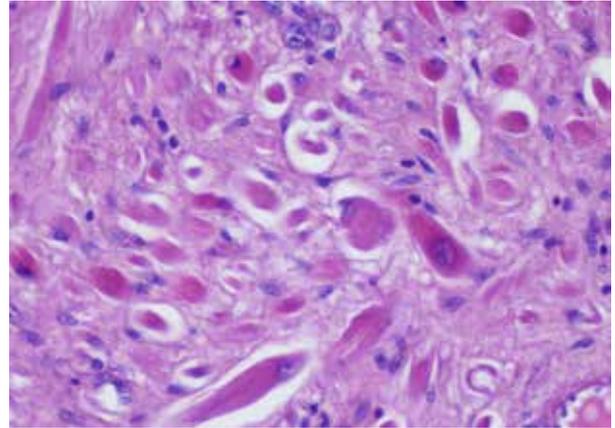


Fig. 2. Tumor cells are spindle-shaped with abundant eosinophilic cytoplasm containing a cross-striation (HE×200).



fibers showing advanced maturation with abundant eosinophilic cytoplasm containing distinct cross-striations. The nuclei are vesicular and round with prominent nucleoli. The tumour cells are arranged haphazardly within a fibrous stroma containing varying amounts of collagen, mucoid material and dilated vessels.

As with other rhabdomyomas, the immunohistochemical staining shows a positivity of tumor cells for desmin, myogenin and muscle-specific actin^{2,3}.

The differential diagnosis includes benign vaginal polyps and botryoid embryonal rhabdomyosarcoma. Unlike vaginal rhabdomyoma, the botryoid embryonal rhabdomyosarcoma is a rapidly growing lesion which usually occurs in young children aged less than 5 years³. It often ulcerates the overlying epithelium in contrast of vaginal rhabdomyoma where the epithelium is intact. Furthermore, the “cambium layer” characteristic of botryoid embryonal rhabdomyosarcoma is absent in vaginal rhabdomyomas. Atypia and mitoses are more frequent in rhabdomyosarcomas than in rhabdomyoma^{2,3}.

Regarding the benign vaginal polyps, they lack striated muscle cells found in vaginal rhabdomyoma⁴.

The behavior of rhabdomyoma is benign. Thus, the complete excision of the lesion is curative. Local recurrences are rare and no metastases have been reported⁵.

References

- Willis J, Abdul-Karim FW, di Sant’Agnese PA. *Extracardiac rhabdomyomas*. *Semin Diagn Pathol* 1994;11:15-25.
- Patrelli TS, Franchi L, Gizzo S, et al. *Rhabdomyoma of the vagina. Case report and short literature review*. *Ann Pathol* 2012;32:53-7.
- Lin GY, Sun X, Badve S. *Pathologic quiz case. Vaginal wall mass in a 47-year-old woman. Vaginal rhabdomyoma*. *Arch Pathol Lab Med* 2002;126:1241-2.
- Leone PG, Taylor HB. *Ultrastructure of a benign polypoid rhabdomyoma of the vagina*. *Cancer* 1973;3:1414-7.
- Losi L, Choreutaki T, Nascetti D, et al. *Recurrence in a case of rhabdomyoma of the vagina*. *Pathologica* 1995;87:704-8.