Journal of BUON **9:** 99-100, 2004
© 2004 *Zerbinis Medical Publications. Printed in Greece*

CLINICAL CASE

Leiomyoma of the vagina: report of a case and literature review

Ch. Tsobanidou[1], G. Dermitzakis[2]

[1]*Department of Pathology, Hippokration General Hospital, Thessaloniki;* [2]*Medical Center of Perea, Thessaloniki, Greece*

Summary

A case of a 63-year-old female with leiomyoma of the anterior vaginal wall is described. These tumors are slow in growth and solitary in number. Recurrence and sarcomatous change are only rarely seen. Treatment consists of surgical excision or enucleation.

Key words: differential diagnosis, leiomyoma, tumor, vagina

Introduction

Vaginal leiomyoma is a rare solid tumor. Although it represents the most common mesodermal tumor in the vagina, no more than 250 cases have been described in the literature since the first case reported by Denys de Leyden in 1733 [1]. Most of these lesions originate from the smooth muscle layers, are benign, and simple excision should be curative. However, malignant variants have been documented. The differential diagnosis is discussed and the relevant Medline-referenced literature is reviewed.

Case presentation

A 63-year-old woman presented to our hospital complaining of dyspareunia for the last 8 months. Her past medical history was non contributory. There was no history of vaginal bleeding. A cervical smear test one year ago was negative. On clinical examination the patient was generally well. Full blood count, renal and liver function tests and chest X-ray were normal. Vaginal examination revealed a polypoid, firm, non-tender mass on the anterior wall of the upper third of the vagina. An ultrasound scan revealed normal uterus and ovaries.

Under general anesthesia the patient underwent excision of the mass through a longitudinal incision of the anterior vaginal wall.

The surgical specimen of the tumor revealed a well-encapsulated 1.5×1 cm mass. The cut surface was pale brown with strands of white fibrous tissue.

Histological examination showed a tumor comprising fascicles of elongated spindle cells with oval nuclei and eosinophilic cytoplasm. The fascicles separated by a greater amount of well-vascularized connective tissue. The stroma contained scattered lymphocytes. Areas of increased acellularity as well as areas of hyaline degeneration were present. Mitotic figures were absent (Figure 1). The immunohistochemical study documented that the spindle cells were positive for vimentin and SMA.

Discussion

Leiomyoma of the vagina is a very rare tumor. Only 9 such cases could be found at the Johns Hopkins Hospital after reviewing 50.000 cases for the

Received 20-08-2003; Accepted 27-09-2003

Author and address for correspondence:

Dr. Chrisoula Tsobanidou
10, Al. Svolou Street
54622 Thessaloniki
Greece
Tel: +30 2310286371
Fax: +30 2392029920
E-mail: gdermitz@otenet.gr

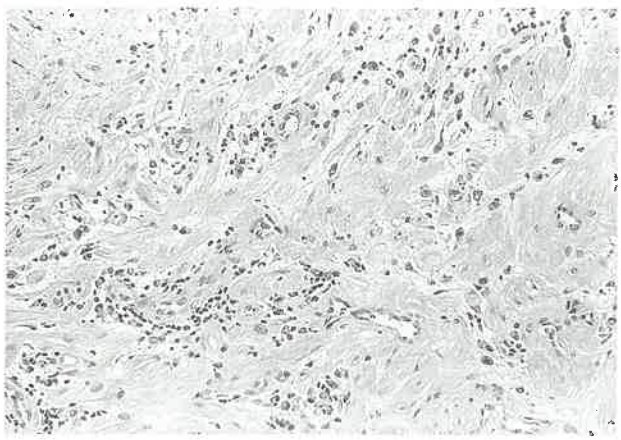


Figure 1. Interlacing bands of smooth muscle separated by connective tissue.

past 50 years [2]. Bennet and Ehrlich [3] found only 1 instance in 15.000 autopsies and Piccagnoni 1 in 14.000 [4].

The importance of these tumors are the unusual problems which may arise in connection with its diagnosis and management. Because of the variety in size, appearance and location of these tumors, they may be confused with much more common gynecologic lesions. The differential diagnosis must include adenosis, endometriosis, inclusion cysts, mesonephric duct remnants and benign or malignant vaginal tumors of different origin [2].

Vaginal leiomyomas have been reported most frequently in women aged between 38-48 years, and predominate in white population. There has been no correlation between the occurrence of leiomyoma in the vagina and the occurrence of leiomyoma in any other sites in the same patient [5].

The tumors may be found in any location within the vagina, but are most commonly located on the anterior vaginal wall and least commonly on the lateral vaginal wall. They are relatively small in size, varying from 1.5 to 4.5 cm in diameter [3]. Occasionally a tumor may reach tremendous size. The largest vaginal leiomyoma recorded measured 20 cm in diameter [6]. They may or may not be pedunculated and covered with smooth intact mucosa. In a number of reported cases, ulceration of overlying mucosa has been noted. Usually they are asymptomatic, but under certain circumstances, such as large size and anatomic location, they may cause a sensation of pressure, obstruction of the urethra, vaginal bleeding and dyspareunia [5]. They are usually firm, but since they may undergo the same degenerating changes like those to the leiomyomas of the uterus, such as hyaline degeneration, calcification, necrosis, cystic changes, mucoid or myxomatous degeneration and fatty metamorphosis, they may vary in consistency from firm to soft [7]. It is this variation in consistency that is largely responsible for the relative difficulty in preoperative diagnosis.

Sarcomatous changes can occur in benign leiomyoma. In a series of 11 cases Liu reported a 9.1% incidence of sarcoma [8]. The histological features present in these variants included high cellularity, increased mitotic activity, nuclear pleomorphism and necrosis. It is an estrogen-dependent tumor which recurs very rarely [9].

The most obvious site of origin of these tumors are the smooth muscle layers of the vaginal wall. Other possible sites of origin include the smooth muscle of the vessel walls. Other suggested histogenetic origins of these tumors are mesothelial or embryogenic remnants, and müllerian or wolffian remnants [10].

As the malignant variants and the recurrence rate of these tumors are very low, the usual treatment method is simple tumor excision or enucleation [5].

References

1. De Leyden D. Cited by Tourneux JP. Progr Med Paris 1934, 41:1569.
2. Sadan O, Kruger S, Van Iddekinge B. Vaginal tumors in pregnancy. Case report and review of the literature. Acta Obstet Gynecol Scand 1987; 66: 559-562.
3. Bennet HG, Ehrlich MM. Myoma of the vagina. Am J Obstet Gynecol 1941; 42: 314-320.
4. Piccagnoni G. Primary tumours of vagina. Policlinico 1921; 28: 8.
5. Quyan A, Birnbaum SJ. Vaginal leiomyoma: Report of a case and review of the literature. Obstet Gynecol 1961; 18: 360-362.
6. Moghissi K. Myoma of the vagina. Report of a case and review of literature. Obstet Gynecol 1960; 15: 235-236.
7. Sangwan K, Huria Khosla A, Hazra PC. Leiomyoma of the vagina. Aust NZ J Obstet Gynecol 1996; 36: 494-495.
8. Liu MM. Fibromyoma of the vagina. Eur J Obstet Gynecol Reprod Biol 1981; 29: 321.
9. Dhaliwal LK, Das I, Gopalan S. Recurrence of leiomyoma of the vagina. Int J Gynecol Obstet 1992; 37: 281-283.
10. Kettle MJ, Loeffler FE. Vaginal fibromyoma. Am J Obstet Gynecol 1995; 92: 574-575.