Case Report
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Incidental diagnosis of vaginal schwannoma in a patient with thigh pain

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Schwannoma commonly arises from Schwann cells of the neural sheath, and is rare in the groin region. Here, we describe a vaginal schwannoma incidentally detected by magnetic resonance imaging (MRI) in a patient with thigh pain. A 43-year-old woman presented with thigh pain with burning and tingling sensations in the medial aspect of her left thigh. MRI revealed a mass lesion of heterogeneous intensity 5.2 × 5.7 cm in the left vaginal wall. The mass was resected and histology revealed schwannoma.

Keywords: Magnetic resonance imaging; Schwannoma; Vaginal neoplasm

Introduction

Schwannoma is a solitary, nodular, benign tumor of peripheral nerves that arises from Schwann cells, and is usually encountered outside the genital tract. Around 45% of schwannomas arise in the head and neck and relatively few occur in the groin region, and benign non-epithelial, solid tumors of the vaginal wall are rare [1-3].

Here, we describe a vaginal schwannoma incidentally detected by magnetic resonance imaging (MRI) in a patient with thigh pain.

Case report

A 43-year-old Korean woman (gravid 2, para 2) presented to an orthopedist with thigh pain and burning and tingling sensations in the medial aspect of the left thigh. The pain reported to be exacerbated by dorsiflexion of the ankle or prolonged activity. The patient's medical history was otherwise unremarkable, and her physical examination was normal. Ankle and toes had full range of motion and deep tendon reflexes were intact. Straight leg raising test was negative, but caused vague discomfort in the thigh. Plain radiograph AP and lateral views of the left thigh were normal. The patient was referred for MRI of the left thigh and images revealed a mass lesion of heterogeneous intensity 5.2×5.7 cm in the left vaginal wall (Fig. 1). During subsequent physical examination, a cystic, non-tender, swelling was palpated in the left vaginal wall.

The patient referred to a gynecologist and it was decided to excise the mass via per-vaginal approach. The solid mass was removed without any perioperative complications, and the patient made an uneventful recovery. Patient's thigh pain disappeared after surgery.

Macroscopically, the tumor was a well-circumscribed, soft, solid mass measuring 5.3×4.3 cm. Tumor section revealed a yellow/gray heterogeneous appearance without apparent necrosis (Fig. 2).

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Microscopic examination showed a fascicular arrangement of spindle cells without nuclear atypia. Mitosis was not observed in high-power fields. Immunohistochemically, tumor cells showed a positive reaction for S-100 protein. All of these features were in keeping with a diagnosis of schwannoma (Fig. 2).

The patient has been followed for 8 months since surgery without evidence of recurrence.

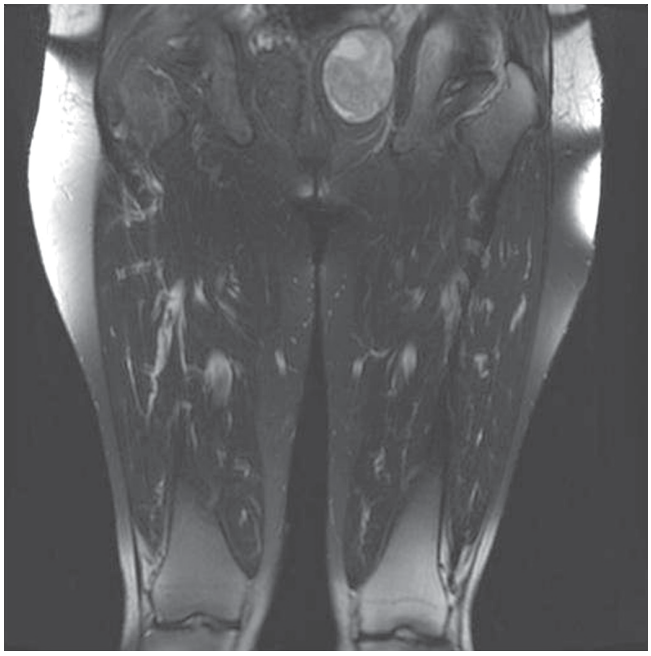

Fig. 1. Magnetic resonance imaging revealed a mass lesion of heterogeneous intensity 5.2×5.7 cm in the left vaginal wall.

Discussion

Schwannomas usually arise from spinal nerve roots, intracranial nerves, or peripheral nerves in the face, neck, extremities, mediastinum, or pelvis [2]. Women are more affected than men. The tumor is usually solitary and encapsulated. A Medline search of the literature revealed only six cases of benign schwannoma of the vagina, and thus, to the best of our knowledge, this is only the seventh reported case of vaginal schwannoma.

Mean age at detection is 46 years (range, 31–62 years), and most lesions are about 6 cm in size, but can be as large as 8 cm [4]. Vaginal schwannomas may present with vaginal bleeding, discharge, or discomfort or be asymptomatic though the presence of these symptoms is related to the tumor size and location [5]. Our patient was 43 years of age and had a 5.3 cm solitary tumor in the left vaginal wall. She presented with a complaint of thigh pain, and did not complain of any discharge, discomfort, or dyspareunia.

Immunohistochemically, the cells of schwannomas express S-100 protein, but do not express epithelial membrane antigen or smooth muscle α-actin. In our case, we confirmed the diagnosis by immunostaining, which demonstrated positivity for S-100 protein and negativity for smooth muscle α-actin. The differential diagnosis of a mass in the vagina includes schwannoma. Immunohistochemical labeling of tumor cells is essential.

The definitive treatment for schwannoma is complete surgical resection [6]. Aggressive surgery is not indicated for

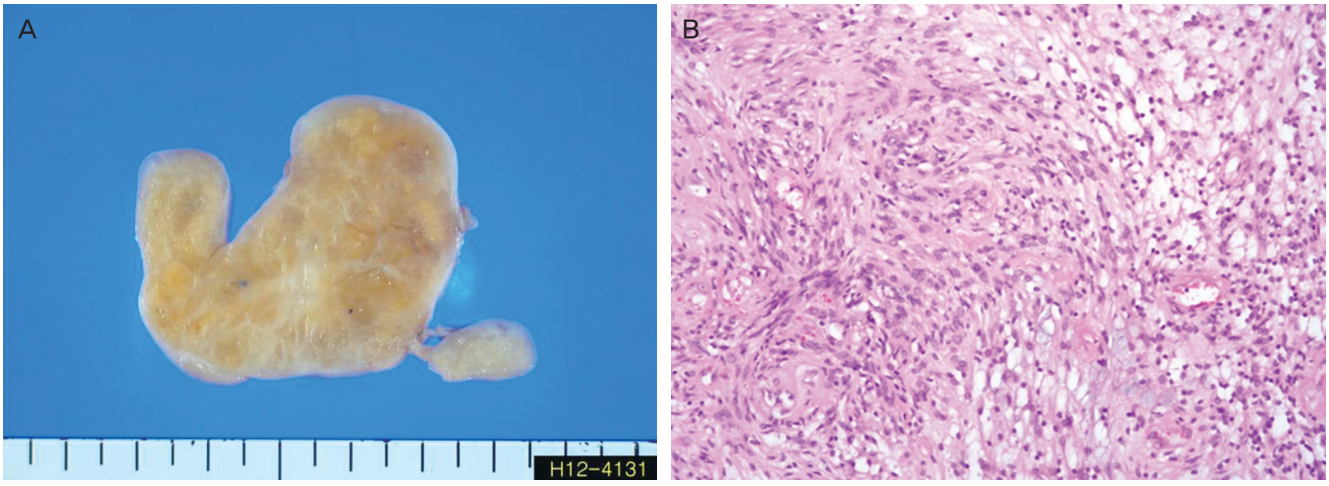

Fig. 2. (A) Tumor section revealed a yellow/gray heterogeneous appearance without apparent necrosis. (B) Microscopic examination showed a fascicular arrangement of spindle cells without nuclear atypia. Mitosis was not observed (H&E, ×20).

benign vaginal schwannomas. Prognosis is usually good and recurrence is rare.

We present a rare type of vaginal schwannoma detected incidentally in a patient with thigh pain. Rare tumor lesions with benign course, such as, schwannoma may be detected incidentally.

Conflict of interest

No potential conflict of interest relevant to this article was reported.

Acknowledgments

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