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CASE REPORT

Case Report: Dyspareunia as a symptom of a pelvic schwannoma

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CASE REPORT

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Abstract

Schwannomas are benign nerve tumors arising mainly in the intracranial, cervical, or lumbar regions. We describe the case of a presacral schwannoma in a 42-year-old woman. This atypical localization is most often discovered by symptoms related to compression of nervous structures. Our patient presented only with deep dyspareunia. The schwannoma was diagnosed on MRI which revealed a presacral hyperintense mass with an antero-posterior diameter of 47mm opposite the S3 sacral orifice. After 6 years of follow-up, the mass was resected because of worsening dyspareunia and sudden lesion growth. The resection was performed through an open abdominal anterior approach and resulted in alleviation of the symptoms without postoperative complications.

To our knowledge, this is the first case of pelvic schwannoma expressing a gynecological symptom such as dyspareunia.

Key words: presacral schwannoma, dyspareunia, surgery, RMI

Case presentation

In 2015, a 42-year-old woman was referred to our Gynecology Department after consulting her general practitioner for inconsistent, isolated, deep dyspareunia. Pelvic MRI revealed a presacral hyperintense mass of 47 mm (48.6x42x36.8). The mass was separate from the uterus and adnexa, and was of regular contour. It extended toward the corresponding right S1 sacral foramen (Figure 1 A, B). There was no urinary or digestive compression syndrome or gynecological organ anomalies. No biopsy was performed because the imaging was typical of a pelvic schwannoma in terms of location, morphology, and signal. Based on the clinical and radiological examinations, we decided to monitor the patient annually.

In 2019, 4 years after the initial presentation, the patient complained of worsening dyspareunia during her routine annual visit. Clinical examination found a retro-uterine mass with pain triggered by uterine mobilization during vaginal palpation.

MRI showed that the lesion had grown by 10 mm in 4 years and measured 57 mm (50.9x54x46), (Figure 1 C, D). It was decided to remove the mass by surgery both because of the worsening dyspareunia and the considerable increase in its size.

Surgery was performed by a team including a gynecologic surgeon and a neurosurgeon by laparotomy via a Pfannenstiel incision because of the size of the lesion. The procedure started by mobilization of the right colon to give better exposure and to identify the right ureter and iliac vessels. The schwannoma was then excised in monobloc by extra-capsular dissection. The tumor had not invaded the S1 root foramen as suggested by the imaging. The supporting nerve root fascicle was not revealed (Figures 2, 3). The postoperative course was uneventful, and no neurological symptoms were observed. The patient was hospitalized for 2 days before returning home.

The diagnosis of a pelvic schwannoma was confirmed on anatomopathological examination.

At 3 months of follow-up, the patient was free of dyspareunia.

MRI re-evaluation at 3 months and at 1 year showed no residual or recurrent schwannoma.

Discussion

Schwannomas are mainly benign tumors typically arising from the Schwann cells on a spinal or cranial nerve. They occur sporadically or as part of neurofibromatosis type 1 or 2 (1) and can develop in the spinal canal with a risk of medullary or radicular compression. The location is mainly cervical, lumbar, or intracranial, particularly in the 8th cranial pair, resulting in the well-known vestibular schwannoma.

Anatomopathological diagnosis is based on immunohistochemistry and the presence of the S-100 protein in the cytoplasm of the tumor cells (2).

Pelvic schwannomas are rarer, accounting for 1-3% of all cases, and presacral schwannomas represent only 0.5% of reported cases (3). Neurogenic tumors of the presacral region are rare, accounting for 10-15% of presacral tumors of any kind.

As pelvic schwannomas are most often asymptomatic (4) and grow slowly, they are most often discovered coincidentally on imaging. However, they can grow considerably in size and impact neighboring nerve, gynecologic, urinary, digestive or vascular structures. In a literature review of 123 patients, the most frequent symptoms described were radicular pain (28.7%), lower back pain (21.3%), or constipation (15.7%) (5). To our knowledge, no previous studies have reported dyspareunia as a specific symptom of a pelvic schwannoma. One could argue that dyspareunia is a common symptom and that it may be not linked with the schwannoma. However, in the present report, 1) the symptom increased with the augmentation of size of the mass, 2) the pain was triggered by uterine mobilization and pelvic MRI did not suggest other diseases such as endometriosis, and 3) removal of the mass was associated with complete and lasting resolution of the dyspareunia.

Preoperative diagnostic workup for a schwannoma is based on MRI.

It can be challenging to distinguish schwannomas from other soft tissue tumors in the pelvis such as fibrosarcoma or liposarcoma (6). Pelvic MRI shows a schwannoma as a well-circumscribed, eccentric, fusiform or rounded mass.

There are no specific recommendations for performing a diagnostic biopsy for a pelvic schwannoma: biopsy may be useful for atypical locations or in case of doubt.

Treatment of schwannomas consists of complete surgical removal when the tumor becomes symptomatic or starts growing rapidly. No cut-off size for surgical indication exists. If surgery is required, the tumor must be completely removed by laparotomy or a laparoscopic approach with or without robotic assistance (9,10) depending on the size. Surgery can be

associated with vascular and neurological risks. The surgical difficulty is mainly associated with the size of the mass and nerve proximity. Even if complete en-bloc resection is recommended to decrease recurrence-free survival, it must be weighed up against the neurological risk (5).

In conclusion, presacral schwannomas are benign and generally slow-growing tumors that can cause deep dyspareunia.

Legends:

Figure 1: Presacral mass: T2 MRI slices in 2015 (sagittal A, axial B)) compared to 2019 (sagittal C, axial D). An increase of 10 mm is observed. The presacral mass shows hyperintensity, is separate from the uterus and adnexa, and has regular contours

Figure 2: Intraoperative view: operative piece after extra-capsular dissection and complete en-bloc removal

Figure 3: Intraoperative view: pelvic view after surgery.

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