



Oncology

Schwannoma of the seminal vesicle: Case report and review of the literature



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ABSTRACT

Seminal vesicles can be affected by tumours originating in other locations. However, primary tumours of the seminal vesicle are extremely rare, with less than 100 cases reported in literature. Seminal vesicle adenocarcinoma is the most common type, but there are also other malign lesions. Diagnosis is challenging due to the lack of early symptoms and well-defined criteria. These tumours are usually asymptomatic and discovered incidentally during imaging tests or pelvic surgery. Definitive diagnosis requires anatomopathological analysis. Case report of 58-years-old man with schwannoma of the seminal vesicle. We describe the main characteristics of these tumours as well as their therapeutic approach.

1. Introduction

Seminal vesicles are frequently involved by tumours originating elsewhere, in particular by prostatic adenocarcinoma, urothelial carcinoma, rectal adenocarcinoma and lymphoma. However, primary tumours of the seminal vesicle are quite rare with no more than 100 cases reported in literature. Among these, the most common is seminal vesicle adenocarcinoma. Other malign lesions described are primary sarcoma, cystosarcoma phyllodes, primary seminoma, and carcinoid. Generally, its prognosis is poor and depends on the delay in diagnosis due to the absence of symptoms at an early stage and the lack of well-defined diagnostic criteria.¹

They are usually asymptomatic and are discovered incidentally during an imaging test for another reason or laparoscopic pelvic surgery. Rare symptoms may include chronic pelvic pain, haemospermia or anal pain.²

There are several imaging tests that can reveal the existence of a seminal vesicle tumour such as computed tomography (CT) or transrectal ultrasound but the most appropriate imaging test to characterize a seminal vesicle mass is magnetic resonance imaging (MRI). MRI allow the localization of the tumour in the seminal vesicle and a better appreciation of the locoregional extension.³

The definitive diagnosis is based on anatomopathological analysis of

the lesion, which can be obtained by transrectal biopsy or by direct open or laparoscopic excision.

The objective of the article is to describe the case of a rare benign tumour of the seminal vesicle called schwannoma, as well as the clinical management carried out by us.

2. Case presentation

We present the case of a 58-year-old man with a history of benign prostatic hyperplasia and lumbar disc disease. He was referred to urology from rheumatology due to the finding in lumbar MRI of a 3 cm solid focal lesion of nodular and heterogeneous appearance in the left seminal vesicle with contrast uptake (*image 1*).

The patient was asymptomatic, with no previous pelvic pain or hematospermia. He had an episode of self-limited hematuria 2 years ago with a normal examination at that time (including cystoscopy, cytology and CT with excretory phase). Examination by digital rectal was normal. Analytically PSA of 3.35 ng/dl and normal CEA. Reviewing previous imaging tests this lesion was already present 2 years ago in an abdominal CT scan with similar dimensions, without an increase in size on the current MRI.

Contrast enhanced Transrectal ultrasound showed slow contrast uptake, ruling out seminal vesicle cyst behavior, so a transrectal prostate

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biopsy and a separate biopsy of the seminal vesicles were performed, with anatomopathological findings of prostatic cylinders without malignancy and seminal vesicle lesion compatible with schwannoma (image 2 and 3).

Surgical resection was ruled out as the patient is asymptomatic and the lesion has remained stable over time. Annual follow-up with a new imaging test was decided. The patient has been followed for 3 years, and the lesion remains stable on imaging tests.

3. Discussion

Due to the few cases reported in the literature, data for the optimal management of seminal vesicle neoplasms are limited.

Since the most frequent involvement of the seminal vesicles is due to invasion of adjacent neoplasms, it is important to rule out its secondary origin. In this case, bilateral involvement of the seminal vesicles in imaging tests is more frequent as a consequence of the primary neoplasm. If imaging tests have not detected other lesions, prostate specific antigen (PSA) can be useful to rule out prostatic neoplasia and other tumour markers such as carcinoembryonic antigen (CEA) to rule out colorectal cancer.⁴

In our patient, the imaging and laboratory tests did not suggest a secondary neoplasm (asymptomatic, unilateral and exclusive involvement of the seminal vesicle, PSA and CEA normal). Although the behavior seemed benign due to the slow growth in the imaging tests, analyzing it retrospectively, we decided to perform a biopsy since the image in the transrectal ultrasound showed a solid lesion and forced us to rule out malignancy since the primary malignant lesions of the seminal vesicles are more frequent than benign ones and the delay in their diagnosis has implications for their prognosis.⁵

They are usually encapsulated tumours composed of 2 areas: the Antoni A or hypercellular and the Antoni B or hypocellular. Other microscopic findings in this type of tumour are blood vessels with thickening and hyalinisation of their adventitia, and a true capsule. Its main differential diagnosis should be with other peripheral nerve sheath tumours, such as neurofibromas, whose differentiation is based predominantly on architectural and cytological findings.⁵

Currently, there are about 75 reported cases of primary seminal vesicle tumours. About 50 are malignant tumours (mainly adenocarcinoma) and the remaining cases are tumours of benign behaviour, including leiomyomas and schwannoma.⁶

There is consensus that masses with benign behaviour and asymptomatic can be managed conservatively with periodic examinations. However, if there is suspicion of a possible malignant neoplasm or symptomatology associated with the tumour, the preferred option is complete removal of the lesion including the entire seminal vesicle by open or laparoscopic approach according to the preference of the patient and the surgeon.⁶ We choose the first option.

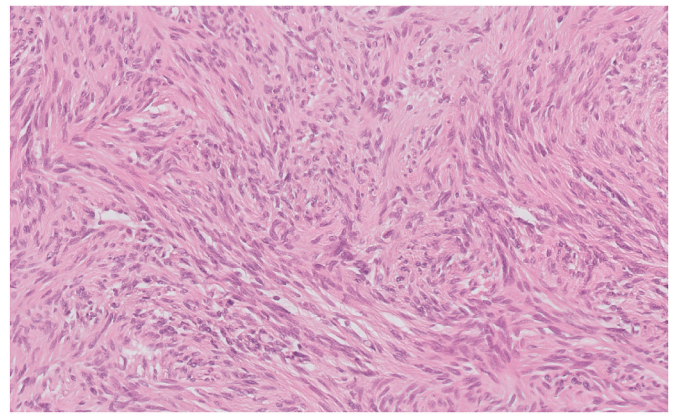


Image 2. Microscopic image of the transrectal biopsy of seminal vesicles (Interlacing fascicles of spindle cells. H&E stain, X20).



Image 3. Diffuse positivity for S-100, x10.

4. Conclusion

Seminal vesicle benign tumours are extremely rare and their diagnosis is difficult but is important to differentiate them from malignant lesions due to survival implications. The management of these neoplasms is controversial due to the limited literature reported. We present the case of a patient diagnosed with seminal vesicle schwannoma and the management performed in our hospital to improve the scientific knowledge on the management of seminal vesicle tumours to the present day.



Image 1. Schwannoma of the left seminal vesicle seen on MRI in axial, coronal and sagittal planes.

Statements

The authors have no relevant financial or non-financial interests to disclose.

Conflicts of interest

The authors declare no competing interests.

Informed consent

All patients included in this study have individually signed the informed consent form allowing the use of personal and medical data.

Declaration of competing interest

The authors declares have no conflicts of interest to disclose.

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