Dear Editor,

We report the clinical case of a bilateral asynchronous leiomyoma of epididymis. A review was made of cases reported in the past 10 years to analyze diagnosis, treatment, and follow-up.

Leiomyomas of epididymis are benign tumors which are uncommon in daily clinical practice. They represent the second leading group of paratesticular tumors, and only 15% are bilateral.

A 60-year-old male patient attended the outpatient clinic referred by his family physician because of elevated prostate-specific antigen (PSA) levels. The patient reported a history of orchiectomy for a benign testicular tumor, in addition to high blood pressure. A review of his clinical history revealed that he had undergone surgery three years before for a right parascrotal mass 4 cm in largest diameter. Right orchiectomy was performed, and a silicone prosthesis was implanted. A pathological study revealed a 4-cm fusiform mass located in the tail of right epididymis, which was reported as leiomyoma of epididymis. Patient was discharged after a follow-up period of two years.

The only significant laboratory finding in the patient was elevation of PSA levels, with a total value of 6.25 ng/mL and a ratio of 14%. On physical examination, a nontender tumor was palpated at the head of the left epididymis, approximately

Bilateral and metachonous leiomyoma of the epididymo: a case report

Leiomioma bilateral y asincrónico de epidídimo: presentación de un caso

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The only significant laboratory finding in the patient was elevation of PSA levels, with a total value of 6.25 ng/mL and a ratio of 14%. On physical examination, a nontender tumor was palpated at the head of the left epididymis, approximately
2 cm in diameter, with an indurated consistency and well-defined margins. The rest of the examination revealed no pathology. Digital rectal examination found a small prostate of adenomatous consistency and with no nodules.

A transrectal, ultrasound-guided prostate biopsy and a testicular ultrasound were requested. Prostate biopsy revealed a Gleason grade 3+3/10 prostatic adenocarcinoma in 25% of the right lobe in one of 5 cores with no perineural infiltration. No malignancy was found in the left lobe. Testicular ultrasound showed a 1.9-cm solid tumor at the head of the left epididymis, with no lesions in the homolateral testis of prosthesis.

After an adequate preoperative study, a paraumbilical median incision was done on the patient, followed by dissection of the spermatic cord and left testis through the inguinal canal. A solid 2-cm mass of a fleshy appearance was completely resected and sent for peroperative pathological study. Once leiomyoma was confirmed, the testis was replaced in the scrotum and radical prostatectomy was completed.

The patient was discharged from hospital after an 8-day uneventful postoperative period.

Specimens of epididymis and prostate were finally reported as leiomyoma of epididymis and a Gleason 3+3/10 prostatic adenocarcinoma in the whole right lobe that focally involved the left lobe with perineural and periprostatic fat invasion (pT3a).

Two years after surgery, the patient shows a good voiding comfort with no stress incontinence. No testicular changes have been found either in physical or ultrasound examinations. PSA levels are lower than 0.01 ng/mL, and total testosterone levels are normal (4.97 ng/mL).

Leiomyomas of epididymis are uncommon tumors which represent the second leading group of paratesticular tumors after adenomatoid tumors. They are usually unilateral, but a review of 29 cases reported in the past 10 years showed bilateral tumors in 14% of cases. Most tumors reported were synchronous, but the one found in our patient occurred asynchronously.

Tumors usually occur in the fifth decade of life. Most reported tumors occurred in epididymis (87%), but leiomyomas have been reported in tunica albuginea (4 patients [10%])²-⁴ and testis (1 patient [3%])⁵.

Diagnosis is usually started by palpation. Tumors are indurated, well circumscribed, and nontender masses⁶-⁷. Ultrasound is the diagnostic method most often recommended by the different authors⁴-⁸. Leiomyoma is described as hypoechogenic, well circumscribed lesions with fine acoustic shadows. In our patient, the ultrasound report only revealed the solid and clearly outlined nature of the tumor (fig. 1)⁴. The different authors agree that ultrasound images are not always conclusive, and recommend surgical resection⁴-⁸.

In the pathological study they were described as tumors consisting of spindles of smooth cells with no atypia, as in our case (fig. 2), but nuclear changes were reported in a patient⁹.

As regards treatment, most authors (70%) performed simple resection or partial epididymectomy. Orchiectomy was performed in only three patients, and was done for reasons such as almost complete replacement of healthy parenchyma⁵, presence of aberrant nuclei⁹, or association to multiple hamartomas in atrophic testes in a patient with a testicular feminizing syndrome². Our patient had previously undergone a left orchiectomy with prosthesis implantation due to a 4-cm tumor. Conservative surgery in the left epididymis was therefore highly needed to avoid chronic hormone replacement therapy.

No evidence of recurrence or dissemination was seen in any of the cases reviewed, and conservative treatment does not therefore compromise prognosis of disease. Our patient is free of disease two years after surgery, as shown by ultrasound monitoring. We do not think that long-term follow-up is required for unilateral conditions. In bilateral cases, hormone function assessment appears appropriate.

Leiomyomas of epididymis are uncommon tumors but may occur in daily clinical practice. Diagnosis is based on palpation and ultrasound examination. Because of their excellent prognosis, resection could be obviated, but ultrasound is
not usually sufficiently reliable for final diagnosis. Thus, complete surgical resection is the most advisable treatment when a paratesticular solid mass is found. Once a leiomyoma has been documented, aggressive treatments should be avoided because, as occurred in our patient, another tumor may occur in the opposite epididymis, even years later.

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REFERENCES


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