CONCLUSIONS

The renal artery aneurysm is a disease with low prevalence and there is no clear protocol of management. The rise in diagnosis of these cases is thanks to the more frequent use of imaging stories like angiography and the CT scan. The endovascular treatment is a good option because does not have the open surgery complications, though it has more risk of renal infarction and bled.

REFERENCES AND RECOMMENDED READINGS (*of special interest, **of outstanding interest)


Summary.- OBJECTIVE: We try to show the relevance of this rare pathology and to set its importance in the differential diagnosis of prostate masses.

METHODS: We report a case and perform a search in the MEDLINE database of the series described up to the date.

RESULTS: Prostatic leiomyoma is a extremely rare anatomopatological finding, though the appearance of a glandular hyperplasia with small areas of leiomyomatous growth is more common. Up to date there are just a hundred
cases described. They are benign mesenchymal tumors without evidence of disease recurrence after surgery.

When they present symptomatology, they emulate benign hyperplasia with urinary tract infections. Although it has benign nature, surgical intervention is indicated when severe clinical symptoms appear.

CONCLUSIONS: The recognition of this benign entity and the distinction from other neoplasias has important therapeutic and prognostic implications. Imaging techniques and pathological analysis are crucial for this reason. When an unusual prostatic mass is detected, the leiomyoma must be included in the differential diagnosis.

Keywords: Leiomyoma. Mesenchymal tumors. Prostate.

INTRODUCTION

The prostatic leiomyoma is a extreme rare anatomopathological finding, though the appearance of a glandular hiperplasia with small areas of leiomyomatous growth is more common. They are benign mesenchymal tumors without evidence of disease recurrence after surgery (1). When they present symptomatology, they emulate the benign hyperplasia with urinary tract infections. Even the benign nature of this pathology, the surgical intervention is indicated when severe clinical symptoms appear. Up to our knowledge there are a few cases described. We report a case and perform a search in the MEDLINE database of the cases described up to date.

Case report

A 64-year-old patient was initially referred to the urology service in our institution presenting hematuria and acute urinary retention. As medical precedents he had a linfoma treated in 2005 and the intake of antiaggregant medication.

After urethral catheterization and stabilization of the patient an abdominal CT was realized for the linfoma follow-up by the hematology service. The CT showed a prostate gland growth (53 grs) with a marked stamp on the vesical floor and a 7 mm nodule in the posterior wall, adjacent to the middle prostatic lobe (Figura 1). The differential diagnosis between vesical tumor or a prostatic protuberance was reported. A flexible cystoscopy was realized showing a congestive prostate with small bleeding points and no evidence of neoplasia. The diagnosis of prostatic hematuria was established. A conservative management was proposed.

After several days of persistent hematuria and catheter obstructions a new cystoscopy was realized failing to stop the bleeding. An exploratory laparotomy and retropubic adenomectomy were realized in order to manage the hemorrhage. The macroscopic examination of the surgical specimen demonstrated an atypical adenoma with spherical and smooth form and whitish coloration. After this intervention the hematuria persisted needing another laparotomy and another cystoscopy.

During the process the hematology service only observed a slight deficit of XIII factor (38 %) as well as an increase of fibrinolisis parameters. The patient required 10 blood concentrates as well as 4 units of fresh frozen plasma in the whole with the administration of desmopressine and aminocaproic acid (oral and intravesical).

Finally, after the last cystoscopy and endoscopic coagulation the bleeding was stopped.

Resumen.- OBJETIVO: Pretendemos poner en relevancia esta rara patología y recalcar su importancia en el diagnóstico diferencial de las masas prostáticas.

MÉTODOS: Presentamos nuestro caso y revisamos la patología descrita hasta la fecha en la base de datos de MEDLINE.

RESULTADOS: El leiomioma prostático es un hallazgo anatomopatológico de extremada rareza, si bien la aparición de una hiperplasia glandular con pequeños focos de crecimiento leiomiomatoso es más común.

Hasta la fecha y en nuestro conocimiento tan sólo hay un centenar de casos descritos. Son tumores mesenquimales benignos de buen pronóstico y sin evidencia de casos de recurrencia de la enfermedad tras su exéresis quirúrgica. La mayor parte de las veces cuando presentan sintomatología lo hacen emulando a la de la hiperplasia benigna de próstata o con infecciones del tracto urinario. Aunque se trata de una enfermedad benigna, la intervención quirúrgica está indicada cuando existen síntomas clínicos severos.

CONCLUSIONES: El reconocimiento de esta entidad y su distinción de otras lesiones neoplásicas de la próstata, tiene importantes implicaciones terapéuticas y pronósticas. Las pruebas de imagen y el análisis anatomopatológico son fundamentales para ello.

Cuando una masa prostática inusual se detecta, el leiomioma debe incluirse en el diagnóstico diferencial y la RM puede ser útil para identificarla.

Palabras clave: Leiomioma. Tmores mesenquimales. Próstata.
The patient was discharged 24 days after the first consultation and he was asymptomatic on the month review.

As relevant finding, the anatomopathologic report discovered that the spherical nodule described macroscopically was a mesenchymal benign tumor constituted by smooth muscle cells. The injury was well delimited and presented an expansive growth (Figure 2). The definitive diagnosis was of prostatic leiomyoma.

**DISCUSSION**

The mesenchymal prostate tumors are a rare entity, specially the leiomyoma. Their origin seems to be the periglandular prostate smooth muscle, the prostate capsule or a mullerian duct remnant (2). The first description of the prostatic leiomyoma was provided by Kaufman and Berneike. The definition included any circumscribed or encapsulated mass of smooth muscle, 1 cm or more in diameter, containing varying amounts of fibrous tissue but devoid of glandular elements and which is either obviously prostatic or juxtaprostatic in origin and position (3).

The pathogenic mechanism of this disease is not still clarified. It has been suggested that repeated infections and the inflammation can transform the glandular tissue into smooth muscle and the hypertrophy originates the myoma (4). The majority of the cases appear incidentally in patients with story of obstructive urinary symptomatology or urinary tract infections. Our case has an uncommon presentation as it the macroscopic hematuria. Up to the date only there is one more case described with similar characteristics but the symptomatology was not so accused. It is less frequent the appearance of a great mass affecting the rectum producing a compressive effect. The prostatic leiomyoma is a benign disease and the surgical intervention is indicated when there are severe clinical symptoms (5). Up to the date there are just a hundred cases described (6).

The pathological anatomy examination is the only medium to reach the definitive diagnosis of leiomyoma but many authors describe the importance of his
radiological signs and emphasize in the value of the image techniques.

In the transrectal ultrasound scan there are described even hyperechogenic or hypoechogenic homogeneous well defined nodules (7). The radiological translation of this disease in the computerized tomography is very diverse. Heterogeneous masses have been described with contrast captation as well as homogeneous prostatic growths with muscle density. In some cases there appears hipodense areas in relation to necrotic tissue (8).

The MR, shows us a isointense prostate in relation with the muscle on T1 weighted sequences and weakly hyperintense on T2 weighted sequences (9). The captation is intense and homogeneous after the administration of gadolinium. It is important to emphasize that the MR allows to clearly differentiate the leiomyomatous tissue and the glandular.

Although this lesion often shows various signal intensity on MR imaging when there are various histological degenerations in the lesion as well as uterine degenerated leiomyoma, it typically shows homogeneous almost isointense signal relative to the muscle on T1- and T2-weighted images, reflecting pathological characteristics of abundant muscle or fibrous tissue component. Anyway the leiomyomatous masses are always well limited (5). In general it shows a homogeneous sign, isointense in relation with the muscle on T1 and T2 sequences, due to the pathological characteristics of the muscle and the fibrous component.

In conclusion, when there is a well delimited nodule inside the prostate, homogeneous and isointense in relation with the muscle on T1 and T2, with an intense and uniform after the gadolinium administration, the leiomyoma must be included in the differential diagnosis (6).

FIGURE 2A. Macroscopic image that shows the smooth and oval morphology of the leiomyoma (H&E).

B) Microscopically we can see how the hyalinized connective tissue with typical spindle smooth muscle cells.

In some areas the cells gather in crowds forming fascicles. (H&E x100).

2A

FIGURE 3. The immunohistochemical analysis shows us a positive reaction of the muscular cells for the actin, the myosin and the desmin.

A) Actin IHQx40.
B) Myosin IHQx40.
C) Desmin IHQx40.
Otherwise the image techniques take a limited value and that is the reason why we always need an anatomopathologic examination to determine the origin of the prostatic mass. The analysis of the leiomyoma is quite important because in certain cases with nuclear atypia there exists a malignization potential.

Macroscopically it has a typical appearance showing a nodular formation well circumscribed of whitish aspect that can be included on the prostate or it can be placed on the periphery of the gland. Microscopically there appears a hyalinized connective tissue with typical spindle smooth muscle cells. In some areas the cells gather in crowds forming fascicles. The immunohistochemical analysis shows us a positive reaction of the muscular cells for the actin, the myosin and the desmin (10) (Figures 3). The cells can present also nuclear immunoreactivity for androgen receptors, variable reactivity for progesterone receptors, and no reactivity for estrogen receptors and Ki-67. The presence of atypia is also an important factor that will help us to predict a possible malignant behavior of the tumor (11). The prostatic leiomyoma with atypical cells has an expansive growth with the presence of vacuolated and multinucleate giant cells. Nevertheless in spite of presenting these cytological characteristics suggestive of malignancy, in longer follow-up, up to 10 years any tumor progression has been detected. These findings before mentioned are interpreted to be reactive and degenerative within the leiomyoma, similar to the findings in reactive stromal cells in lesions from various sites such as the cervix, vagina, vulva, bladder, and breasts (12).

CONCLUSIONS

The recognition of this benign entity and the distinction of other neoplasms has important therapeutic and prognostic implications. For this reason the image techniques and the pathological analysis are essential. When an unusual prostatic mass is detected, the leiomyoma must be included on the differential diagnosis.

REFERENCES AND RECOMMENDED READINGS

(*of special interest, **of outstanding interest)