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Relato de Caso

Hemangiopericytoma of seminal vesicle presenting with hypoglycemia

Hemangiopericitoma de vesícula seminal apresentada com hipoglicemia

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INTRODUCTION

Described in 1942 as hemangiopericytoma (HPC) since they originate in Zimmerman pericytes, cells in the vascular wall, along the basal membrane in focal contact with the vascular endothelium^(1,2,3). Can be located anywhere in the body, but predominate in the lower extremity, retroperitoneum, head and neck⁽⁴⁾. Less than 40 cases of hemangiopericytoma involving the genitourinary tract have been described and only one case originating in the seminal vesicle^(5,6). We describe the second case of this tumor originating in the seminal vesicle presenting with associated hypoglycemia.

■ CASE REPORT

A 42 year old man, white, with routine annual monitoring returns eight months after the last normal evaluation, with complaints of urinary frequency, urgency, feeling of heaviness in the pelvis and nocturia. Also reported malaise, weakness, dizziness and drowsiness. In digital rectal examination prostate fibro-elastic with 20cc, urinalysis with 3,000 leukocytes, culture negative, glucose 47mg/dL and PSA of 0.84 ng/ml. An ultrasound showed a solid lesion in the topography of left seminal vesicle and a MRI showed a expansive lesion, solid, well defined, with its epicenter in the left seminal vesicle, heterogeneous with cystic areas, with cleavage plane between prostate and posterior wall of the bladder, measuring 45 mm in diameter (Figure 1). A transrectal biopsy of the lesion showed that it was a hemagiopericytoma. CT scans of the abdomen and chest were normal.

The patient underwent laparoscopic resection of the lesion (Figure 2) preserving prostate, right seminal vesicle and bladder. Lesion with well-defined with pseudo-capsule

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Figure 1. Magnetic resonance imaging revealing a heterogeneous mass, well defined posterior to the bladder and prostate.



Figure 2. Laparoscopic view of the tumor (T) with the deferent (D) dissected and the posterior wall of the bladder (B).



contents softened with gray color (Figure 3). He was discharged after 36 hours with a good outcome and the pathology confirmed the diagnosis of hemangiopericytoma with radial margins compromised by neoplasm (Figure 4). With follow-up of 26 months, no evidence of recurrence or metastasis and the patient is asymptomatic



Figure 4. Photomicrographs. A. In the center vase sinusoidal pattern, surrounded by elongated neoplastic cells with minimal pleomorphism (HE 200x). B. branched vascular network with vessels large and small caliber, lined by single layer of flat endothelium (HE 100x). C. Dense collagen that extended the perivascular interstitium (HE x400).



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Discussion

In international literature, this is the second case described HPC originating from the seminal vesicles⁽⁶⁾. These tumors are rare and difficult to diagnose and in some cases described have been questioned in recent reviews⁽⁷⁾. In urinary tract have been described in the kidney, bladder, prostate and spermatic cord^(4,8-10). The clinical presentation is nonspecific and depends on the affected site. They are deep tumors with slow-growing, which can cause urinary and/or intestinal symptoms, as in this case, since there is some metastasis in 50% of cases⁽¹¹⁾.

Macroscopically, the HPC is well circumscribed and covered by a thin pseudo-capsule, richly vascularized. When cut, going from gray to red-brown, often with areas of hemorrhage and necrosis⁽¹¹⁾. Hemangiopericytomas of benign behavior usually are well defined, although the capsule may contain tumor cells infiltrated microscopy⁽⁵⁾, fibro elastic or soft consistency, white or gray. Those of malignant behavior, in turn, tends to be larger, grossly infiltrative, with areas of hemorrhage, necrosis or friable. In the analysis are presented fibrous, spongy or vascular⁽¹¹⁾.

In microscopy, the classical hemangiopericytoma consist of spindle cells with indistinct cytoplasmic edges, arranged around an elaborate vasculature. These vessels branching form a web with variations in the caliber. Typically, the vessel has a sinusoidal default type setting staghorn-branching, while those larger gauge by thickening collagen, which extends into the interstitium. Show immunohistochemical positivity for CD34⁽¹²⁾. Histologic criteria for malignacy include cellular pleomorphism, tumor necrosis, hemorrhage, hypocellularity, moderate-to-severe nuclear atypia, infiltrative margins, sharply demarcated anaplastic or poorly differentiated foci, and high mitotic count (>4 mitoses/10hpf)^(3,13).

Due to the release of insulin growth factor-like, paraneoplastic syndromes such as hypoglycemia are associated with HPC and occur in up to 50% of cases and hypertension secondary to ectopic production of renin is also reported^(6,14). The imaging findings also are not specific and show a mass bounded by a pseudocapsule, retrovesical, with or without prostatic urethral obstruction⁽¹⁵⁾.

Because of the rarity of this location, this is the first reported case of laparoscopic excision of a solid fibrous tumor of the seminal vesicle. Some authors suggest preoperative vascular studies and arterial embolization, because of bleeding risk with resection, particularly in tumors located in the central nervous system or chest⁽³⁾. We did not performed prior embolization and intraoperative bleeding was minimal. Espat et al⁽⁷⁾ suggest that mutilating surgery should be avoided because of the favorable evolution of

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HPC, and if histological criteria of malignancy arise, adjuvant radiotherapy may be considered. It is believed that the prognosis is better than that reported in previous studies where other types of sarcomas more aggressive were included^(7,13). Recurrences have been reported after 24 years and long-term follow-up is recommended, even with benign appearing tumors.

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