The case of cavernous testicular hemangioma

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Objective: To present the rare case of testicular hemangioma. Case report: A 45-year-old clerk presented with painless swelling in the left testicle, which he noticed one month ago. Inguinal orchidectomy on the left side was performed and pathological report proved cavernous hemangioma. Conclusion: Hemangioma of the testis is very rare clinical condition. Clinical appearance and diagnostic exams are usually not sufficient for the diagnosis. Sometimes, hyperechoic lesion with increased vascularity can be seen on Doppler ultrasonography.

Key words: hemangioma, testicular cancer, benign testicular tumors, cavernous hemangioma

INTRODUCTION

All vascular anomalies can be divided into tumors and malformations. Vascular malformations are always present at birth; they grow by hypertrophy and never undergo involution. Hemangiomas grow due to hyperplasia, and usually undergo a progressive involution¹. When there is an arrest in the development of the circulation during the stage of an undifferentiated capillary network, a cavernous hemangioma results. It contains mixed blood, and it is impossible to distinguish the arterial and venous components².

Hemangiomas of the testis are very rare, and only 19 cases have been reported since 1997³. In 2000, Mazal et al. classified vascular tumors of the testis published in the literature: cavernous hemangioma (8 cases), histiocytoid hemangioma (8 cases), capillary hemangioma (5 cases) and papillary endothelial hyperplasia (1 case)⁴. Since 2007, 19 cases of cavernous hemangioma have been reported in the literature⁵. To date, all reported vascular testicular tumors have had benign behavior without any metastases or recurrence.

Cavernous hemangiomas do not cause major difficulties in the histological diagnosis. They are composed of large vessels with dilated lumina and thin walls.

Hemangiomas probably arise from the inner layer of the tunica albuginea, which contains blood and lymphatic vessels and sends septa into the testicular parenchyma⁶.

The patients present with a palpable scrotal mass, in good condition and with normal laboratory findings. Theoretically, Doppler ultrasonography should make obvious the nature of the mass and differentiate it from malignant testicular tumors.

Case report

A 45-year-old clerk presented with painless swelling in the left testicle, which occurred one month ago. Physical examination revealed the elastic swelling inside the left testicle and normal right testicle. Digitorectal examination of the prostate was normal. All laboratory findings were within the normal limits, as well as the testicular tumor markers. Scrotal ultrasonography demonstrated 25x20mm hyperechoic spherical lesion surrounded with normal testicular tissue. Color Doppler ultrasonography showed increased peripheral vascularity around the lesion, but without increased signal inside the lesion. (Figure 1)

Considering the lesion to be most probably seminoma, left inguinal orchidectomy was performed. Pathological examination revealed benign lesion inside the testicle-cavernous hemangioma. (Figures 2 and 3)

DISCUSSION

Testicular cancer still represents the most common malignancy in 20 to 34-year-old men, with rising incidence in industrialized countries, ranking from 2.5-9.2/100,000 in European countries⁷. On the other hand, testicular hemangiomas are extremely rare, and have been seen in only few institutions worldwide. That is the reason that the diagnosis is usually established only after the inguinal orchidectomy. Testicular hemangiomas may appear in small boys, aged from few months or few years⁸ or may
be seen in old men. Few cases in the literature described hemangiomas in tunica albuginea and spermatic cord.

In this case, scrotal swelling, hyperechoic lesion on ultrasonography, testicular tumor markers within the limits and the absence of dissemination in the retroperitoneum and the lungs, led to the preoperative diagnosis of stage I seminoma. Even the Doppler sonography, which presented increased vascularity around the lesion, was not doubtful. There was no attempt for surgical exploration neither for conservative surgery, in the presence of normal contralateral testis. Pathological report proved the presence of benign lesion, cavernous hemangioma of the testis.

Extremely low incidence of testicular hemangiomas, roughly about thousand times lower than that of testicular cancer, makes the diagnosis less likely. Maybe it should be considered in the case of young patient and/or solitary testicle, with normal tumor markers and hyperechoic lesion with increased vascularity.

**SUMMARY**

**REDAK SLUČAJ KAVERNOZNOG TESTISA**

**Cilj rada:** prikazati redak slučaj kavernoznog hemangioma testisa.

**Prikaz slučaja:** Službenik, star 45 godina, javio se lekaru zbog bezbolnog uvećanja leve močnice, koje se pojavilo pre mesec dana. Učinjena je tipična radikalna orhiektomija kroz ingvinalni pristup. Patohistološki nalaz je govorio da se radi o kavernoznom hemangiomu.

**Zaključak:** Hemangiomi testisa se danas sreću veoma retko. Klinička slika i uobičajena dijagnostička sredstva nisu dovoljna za postavljanje dijagnoze. Ponekad se na Doppler ultrasonografiji vidi karakteristična hiperehogena promena sa pojačanom vaskularizacijom.

**REFERENCES**

