Case 8702

Adenomatoid tumor of the tunica albuginea

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Authors: Schepers S, Cornelissen L, Broeckx J.
Dept. of Radiology, Jessa Ziekenhuis Hasselt, Campus Salvator, Belgium.
Patient: 55 years, male

Clinical History:

We present a case of a 55 year old male with a painless testicular mass.

Imaging Findings:

A 55 year old male was referred by his general practitioner for an US of a painless mass in the right hemiscrotum. There was no fever, no history of epididymitis, testicular torsion or trauma. The patient felt the swelling for about half a year. Alpha-phoetoproteins and beta-HCG were normal. Ultrasound showed a lens shaped hyperechogenic lesion with a diameter of 1 cm in the lower pole of the right testis. Because it was not obvious whether the tumour arose from the testis or the tunica albuginea, a MRI-examination was performed. Following sequences were performed: axial T2 TSE with and without fatsat, axial T1 TSE with and without fat saturation, sagittal T2 TSE, coronal T2 TSE, axial and sagittal T1-TSE fatsat after gadolinium-administration. This showed the tumour to be localised inside the tunica albuginea, with a T2 hypo-intense rim. The inner part of the tumour was of a lower signal-intensity than the testicular parenchyma. After gadolinium, there was a bright enhancement of the tumour rim and a moderate (higher than the normal testicular parenchyma) enhancement of the tumour centre. There was also enhancement of the tunica albuginea in the vicinity of the tumor. Imaging features were characteristic of an adenomatoid tumour of the tunica albuginea. A surgical exploration of the scrotum was performed and this showed a white firm tumour at the lower pole of the right testis. Frozen section showed a benign tumour. Partial orchiectomy was performed and the final APO-diagnosis was that of an adenomatoid tumour of the tunica albuginea.

Discussion:

An adenomatoid tumour of the tunica albuginea is a benign tumour of mesothelial origin. It can be seen in all ages, but is most common in the third to fifth decades of life. It represents 30% of all paratesticular tumours. Most of them arise in the epididymis, only 14 % in the testicular tunica (vaginalis and albuginea). Typical is the lens-shaped appearance, the location near the lower pole of the testis, the low T2-signal intensity of the rim and the rim-enhancement after gadolinium. Lesions can be both hyper- or hypoechoic relatively to surrounding testicular parenchyma, there can be a poor defined T2 rim on the testicular side and contrast-enhancement of the centre of the lesion can be higher or lower than the normal testicular parenchyma. An adenomatoid tumour of the tunica albuginea does not necessitate an agressive surgical treatment (orchiectomy), but an intra-operative frozen section followed by tumour-resection.

Differential Diagnosis List: Adenomatoid tumor of the tunica albuginea
Final Diagnosis: Adenomatoid tumor of the tunica albuginea

References:


Figure 1

Description: Sagittal US image shows hyperechogenic lens-shaped lesion in the lower pole of the right testis

Origin:
Description: Axial T2 TSE fatsat 

Origin:

Description: Axial T2 TSE without fatsat 

Origin:
Description: Sagittal T2 TSE without fatsat

Origin:

Description: Axial T1 TSE fatsat after gadolinium

Origin:
Description: Sagittal T1 TSE fatsat after gadolinium Origin: