
Intratesticular Varicocele: Diagnosis by Power Doppler Sonography with the Valsalva Maneuver

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A 52 year old man who underwent bilateral orchidopexy at the age of 10 for cryptorchidism, and who had undergone a right inguinal orchiectomy for classical seminoma 2 years ago, was found to have a lesion suspicious for malignancy in the remaining testis on routine ultrasound follow-up. The patient was asymptomatic and no mass was detected on palpation. His metastatic workup was negative. The lesion appeared as a round hypoechoic mass in the lower pole of the testis in the area of the mediastinum testis [Figure A]. Smaller, irregular hypoechoic le-

sions were also seen in the periphery of the testis adjacent to the main lesion. Power Doppler examination, however, demonstrated that the lesions were vascular [Figure B], and on Valsalva's maneuver there was marked increased blood flow in all the hypoechoic areas [Figure C]. The findings were consistent with a diagnosis of intratesticular varicocele.

No extratesticular varicocele was seen on sonography.

Intratesticular varicocele is a rare condition seen in less than 2% of the symptomatic population [1,2]. Fewer

than 50% of cases are associated with an ipsilateral extratesticular varicocele [2]. Most cases are either asymptomatic or associated with a history of orchitis, infertility or testicular swelling and pain. The classical appearance is of tubular or oval intratesticular lesions with flow demonstrated on Doppler sonography [2]. Given a 2-3% risk of a metachronous contralateral testicular tumor, a hypoechoic lesion is highly suspicious of a neoplasm [3]. However, enhancement of the lesion during the Valsalva maneuver is diagnostic and sufficiently specific to differentiate the



[A] Sagittal sonogram of the testis, showing a round hypoechoic mass (arrow) in the lower pole. **[B]** Power Doppler sonogram of the testis, showing blood flow within the round mass (long arrow), as well as in the serpentine tubular lesion in the posterior aspect of the testis (short arrow). **[C]** Power Doppler sonogram of the testis during Valsalva's maneuver, showing markedly increased blood flow in the lesions, consistent with dilated veins.

condition from other intratesticular entities, including cancer, cysts, focal orchitis, tubular ectasia of the rete testis and hematoma.

References

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