Clinics in Surgery

Clinical Image
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Epidermoid Cyst of the Testicle

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Clinical Image

A 22-year-old previously healthy male presented with a firm, palpable, painless mass in the right testicle which had been present for about six months. He denied any other constitutional or genitourinary symptoms. Physical exam demonstrated a firm right upper pole testicular mass on palpation. Ultrasound of the scrotum (Figure 1), demonstrated a 1.4 cm × 1.3 cm intra-testicular heterogenous hypoechoic circumscribed mass with concentric echogenic rings creating an "onion ring appearance". The mass was hypovascular compared to the surrounding testicle (Figure 2). The patients' tumor markers demonstrated a beta-HCG, AFP and LDH of <1 ng/ml, 2.4 ng/ml, and 146 IU/L, respectively. Computed tomography of the abdomen and pelvis did not demonstrate any evidence of metastatic disease. The differential for such a mass on imaging is broad, however, the appearance on ultrasound was considered highly suggestive of an epidermoid cyst [1,2]. The patient was counseled that there have been reports of concurrent teratoma in epidermoid cysts; however, there are likely subtypes of epidermoid cysts with variable malignant potential [3-5]. The patient was counseled on options forobservation with serial ultrasound, testis-sparing surgical removal, and radical orchiectomy. He elected for a partial orchiectomy. At the time of surgery, the mass was approached through the right inguinal canal. Once the testicle was delivered into the field, the mass was readily palpated in the superior portion of the testicle, and the overlying tunica albuginea was divided. The mass was delivered and excised from the surrounding seminiferous tubules. Both the mass and a deep margin were sent to pathology for frozen section evaluation which demonstrated a keratinized and squamous epithelium-lined cystic lesion with negative deep margin. Final pathology was consistent with an epidermal inclusion cyst without malignant elements or intratubular germ cell neoplasia. The patient recovered well from surgery and is continuing routine monthly testicular self-examination.

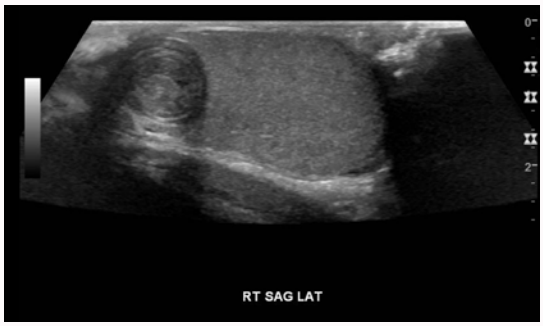

Figure 1: High-frequency linear array ultrasound image demonstrating a 1.4 × 1.3 mass in the superior pole of the right testicle.

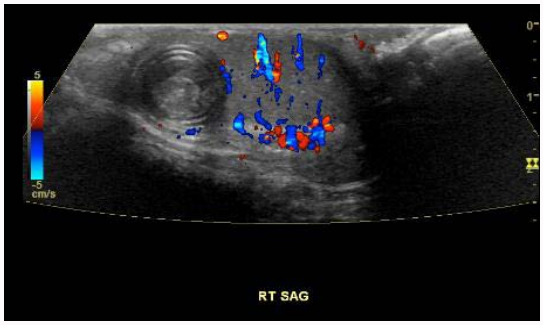

Figure 2: Doppler enhanced ultrasound demonstrating hypovascularity of the mass in comparison to the surrounding testicular parenchyma.

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