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# Testicular Epidermoid Cyst

**Bita Geramizadeh*, ***♦, Shahrzad Yazdanpanah**, Ali Aryafar*****

*Transplant Research Center, Shiraz University of Medical Sciences, Shiraz, Iran
**Department of Pathology, Shiraz University of Medical Sciences, Shiraz, Iran
***Department of Surgery, Shiraz University of Medical Sciences, Shiraz, Iran

A 19-year-old male presented with a chief complaint of mild scrotal pain for eight months duration. There was no positive history of weight loss and the patient was in generally good general health. Physical examination and laboratory findings were unremarkable. Laboratory examinations consisted of a complete blood count and biochemical tests, both of which were within normal limits. Laboratory evaluations that included beta-human chorionic gonadotropin (beta-HCG), lactate dehydrogenase (LDH), and alpha-fetoprotein (AFP) were also normal. Testicular ultrasonography revealed a circumscribed, heterogeneous, predominantly hypoechoic mass in the right testis that measured 13 mm in diameter (Figure 1). The overall volume of both testicles was normal. The epididymis was normal and there was no hydrocele or varicocele.

With the clinical impression of malignancy, the patient underwent an orchiectomy. The pathological specimen was a relatively enlarged testis. The cut section of the testis showed a round-to-oval well-defined mass that measured 1.5 cm in diameter. The cut section of the mass was lamellated (Figure 2). Several cut sections for microscopic examination were taken. The diagnosis was testicular epidermoid cyst.

## Discussion

Epidermoid cysts are rare, benign, keratin-filled cysts that typically present as solid-appearing intratesticular masses.[1] The histogenesis of a testicular epidermoid cyst has not been completely established, however these tumors can be either the monodermal development of a teratoma or squamous metaplasia of the seminiferous epithelium or rete testis.[2]

Testicular epidermoid cyst was first described in 1942 by Dockerty and Priestley. This cyst accounts for 1%–2% of all testicular lesions. The common age of presentation is between the 2nd to 4th decades of life.[3] Clinically, an epidermoid cyst cannot be differentiated from other testicular tumors, because all typically present as nontender, palpable, solitary intratesticular masses.[4]

Diagnosis of this tumor often begins by ultrasonography, which

♦Corresponding Author:
Bita Geramizadeh, MD
Transplant Research Center and Pathology Department, Shiraz University of Medical Sciences, Shiraz, Iran
Email: geramib@sums.ac.ir

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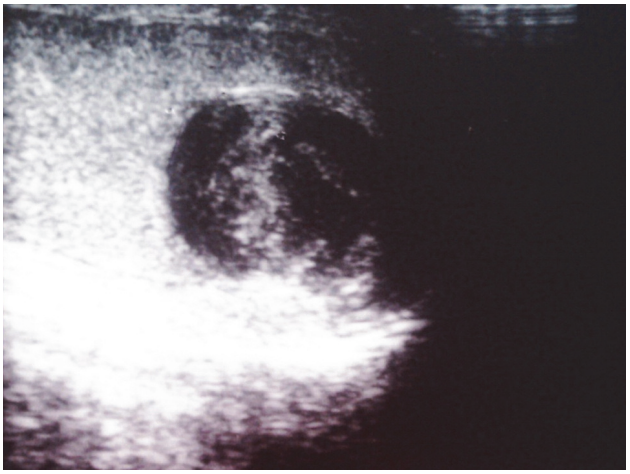

**Figure 1.** Sonography of the testis shows a circumscribed, heterogeneous, predominantly hypoechoic mass in the right testis, 13 mm in diameter.

**Figure 2.** Gross appearance of the orchiectomy specimen.

shows a sharply defined unilocular cystic mass with a hyperechoic rim. In the lesion, there is a unique "onion ring" appearance of alternating hypoechogenicity and hyperechogenicity that represent layers of compacted keratin and desquamated squamous cells.[5] Overlap exists in these findings with teratomas and other germ cell tumors.[1]

Microscopic examination of the resected cyst shows a fibrous wall lined by keratinizing squamous epithelium. The cyst is composed of laminated cheesy material, which is similar to epidermoid cysts found throughout the body.[2] Sonography is the mainstay of the preoperative diagnosis and shows strongly suggestive findings of an epidermoid cyst.[3]

In this report we suggested that the sonographic appearance of an avascular, onion peel-like lesion associated with the absence of abnormal tumor markers might assist in establishing a preoperative diagnosis of a benign lesion, thus allowing for a testis-salvaging procedure.

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