Enterogenous Cyst of the Testis

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An enterogenous cyst is a rare developmental anomaly. It is lined by columnar epithelium of endodermal origin. Most of these cysts present in infancy or childhood and their pathogenesis are not well understood. A few reports of an enterogenous cyst occurring in the gastrointestinal tract, intracranial cavity, spinal canal and retroperitoneum, have been documented, but it is extremely rare in the testis.1-4 Here we present the first reported case of an ‘enterogenous cyst of the testis’ in Korea and the second case in the world literature.

CASE REPORT

A 21-year-old man presented with right scrotal pain for several weeks. On ultrasonography, an ovoid hypoechoic solid mass (2 × 2 × 1.5 cm) was noted in the right testis. The left testis and bilateral epididymis were unremarkable. There was no hydrocele or varicocele. Clinically, a testicular tumor was suspected at the time of the initial study. However, the laboratory tests including α FP, β-hCG and LDH were within normal limits. The medical history was negative for previous scrotal symptoms. Herniorrhaphy of the right inguinal area was performed 20 years ago. A radical orchietomy of the right testis was performed to rule out a testicular malignancy.

Grossly, the tumor was a unilocular cystic mass, without a solid component. The cyst contained transparent fluid (Fig. 1). Microscopically, its wall was composed of mucin-secreting simple columnar epithelial lining cells, lamina propria and a well-differentiated muscularis propria (Fig. 2). There was no evidence of any germ cell derivatives or neoplasia in the cystic mass and in the surrounding testicular parenchyma. Immunohistochemistry showed a positive reaction for cytokeratin and the epithelial membrane antigen in the epithelial lining; in addition, it was positive for smooth muscle actin in the well-differentiated muscularis propria.

DISCUSSION

Enterogenous cysts, also called neurenteric cysts, are rare congenital lesions that are lined by mucus-secreting epithelium resembling that of the gastrointestinal and respiratory tracts. They are more common in males (M:F ratio=1.5-3:1).7 They are frequently found in the spinal canal at the lower cervical and upper thoracic levels. Occurrence in the testis is rare.15 These lesions are thought to originate from endodermal remnants after...
incomplete separation of the endoderm, or abnormal differentiation of endodermal tissue from the mesoderm or ectoderm during early embryogenesis. Histologically, the differential diagnosis should include a mature cystic teratoma and a mucinous cystadenoma. Mature cystic teratomas occur more frequently in the first and second decades of life and usually have components other than mucinous epithelial lined cysts. In addition, they are usually accompanied by an intratubular germ cell neoplasia. The absence of the derivatives of neuroectodermal and ectodermal tissues ruled out the presence of a mature cystic teratoma. In mucinous cystadenomas, a proper muscle layer is normally absent whereas enterogenous cysts contain structures of all three germ layers (epithelium, blood vessel, smooth muscle, and fibrous tissue).

A preoperative diagnosis was not made in our case, consistent with prior reported cases. This is because the clinical and radiological findings are non-specific. Enterogenous cysts act as a slow-growing tumor, causing a progressive mass-effect with compression of the adjacent structures. Because of their benign nature, enterogenous cysts might be amenable to conservative treatment. However, detection of a cystic, well-circumscribed lesion with a marked mass-effect is usually an indication for a surgical excision. Whether diagnosed preoperatively or confirmed postoperatively, the complete excision of the cyst is the primary goal of treatment and is associated with a good outcome.

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