Scrotal Lymphangioma: Symptoms and Diagnosis

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Abstract

We report here in a case of a scrotal lymphangioma with the characteristic symptom of intracystic bleeding that occurred in the absence of any traumatic episode. A boy, aged three years and eight months, presented with a swelling in his inguinoscrotal region that had gradually grown over time. By three years of age, the skin color of the scrotum had taken on a bluish tinge. Exploratory surgery revealed a multi lobular cyst in the subcutaneous region of the inguinal area that had spread to the scrotum. The cystic fluid was serous but slightly brownish. The inner epithelial layer of the cyst was positive for the lympho epithelial antigen, D2-40, indicating a lymphangioma. In conclusion, a cyst in the inguinoscrotal region that shows hemorrhaging in the absence of pain indicates this to be a lymphangioma.

Keywords: Lymphangioma of scrotum; Hemorrhage; Hydrocele; Color doppler sonography

Introduction

A hydrocele in the inguinoscrotal region is most frequently the result of an inguinal and/or scrotal cyst. A differential diagnosis of lymphangioma in the inguinal and/or scrotal region is difficult because of its rarity [1] however, a physician should be aware of such a diagnosis when initiating treatment of a hydrocele. Any lymphangioma found should be completely excised to prevent a recurrence [2]. However, an accurate diagnosis is essential for such radical treatment. We report here an illustrative case of a scrotal lymphangioma with the pathognomonic symptom of intracystic bleeding and subsequent, essential diagnostic imaging.

Case Presentation

A healthy boy, aged three years and eight months, was referred to our institute because a swelling in his inguinoscrotal region had enlarged; the scrotal skin had also changed to a blue color without any apparent reason. His right scrotum had been swelling since he was six months old, and this was consequently diagnosed as a hydrocele.

An ultrasound examination of the swollen scrotum revealed a cystic lesion, 20 × 30 mm in size, which extended from the inguinal area to the scrotum. The cystic fluid was serous but slightly brownish. The inner epithelial layer of the cyst was positive for the lympho epithelial antigen, D2-40, indicating a lymphangioma. In conclusion, a cyst in the inguinoscrotal region that shows hemorrhaging in the absence of pain indicates this to be a lymphangioma.

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Discussion

Lymphangioma has been classified into three subtypes, such as capillary, cavernous lymphangiomas and cystic hygroma. This classification is based on their microscopic characteristics. Lymphangiomas occur with about a 6% frequency in benign tumors [3]. Superficial lymphangiomas...
are often noticed in children, with the most commonly affected sites being the neck (75%) and maxilla (20%) [4]. Of these, inguinal or scrotal lymphangiomas have rarely been reported, with only about 80 cases described in the English medical literature to date [2,5]. In contrast, hydroceles occur quite frequently, often as the result of an inguinal and/or scrotal cyst [5]. However, distinguishing between a hydrocele and a scrotal lymphangioma based only on physical findings is quite difficult. In particular, a scrotal lymphangioma is often misdiagnosed as a hydrocele, inguinal hernia, hematocoele, varicocele or possible torsion of the testis because of its rarity [1].

In general, a lymphangioma located anywhere in the body can grow to a large size as a result of infection or hemorrhage [6]. The incidence of hemorrhage in scrotal and/or inguinal lymphangiomas is approximately 30%, calculated from 33 reported cases of scrotal or inguinal lymphangiomas in English language medical papers published since 1964 [2,7-10]. A cyst with an obvious hemorrhage that is located in the inguinal and/or scrotal region is a characteristic sign of a scrotal and/or inguinal lymphangioma, with the hemorrhage allowing us to make a differential diagnosis of a lymphangioma. We should, therefore, consider a lymphangioma when making a differential, routine diagnosis of a hydrocele in the inguinal and/or scrotal region. Ultrasonography with color Doppler as a routine examination should be performed to image the blood supply in the lymphangioma wall [8]. In addition, magnetic resonance imaging can clearly show the exact region of the cyst, with characteristic findings of the wall [2].

In conclusion, the appearance of a hemorrhage in a scrotal and/or inguinal cyst in the absence of pain should identify this as a lymphangioma.

References

