Epidermoid Cyst of the Testis Misdiagnosed as a Hydrocele: A Case Report

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Abstract

We present a case of a 63 years old patient who presented with a slow-growing, painless testicular swelling clinically diagnosed as a hydrocele. The patient underwent elective hydrocele repair, where it became apparent that the diagnosis of a hydrocele was incorrect. On incision of the presumed hydrocele sac, a caseous material was encountered and no obvious healthy testicle was apparent. An orchidectomy was performed and pathological assessment revealed the lesion to be an epidermoid cyst, a rare benign lesion of the testicle that clinicians should consider when assessing scrotal swellings.

Keywords: Epidermoid cyst; Hydrocele; Orchidectomy

Introduction

Benign epidermoid cysts account for around 2\% of all testicular tumours. Identified in 1942 their etiology still remains to be confirmed [1]. Although well documented in the literature, this rare lesion may not be considered by clinicians assessing a scrotal lump. This case report illustrates how an epidermoid cyst may be misdiagnosed as a hydrocele on clinical assessment only. It is hoped this case report will inform clinicians about this rare tumour and illustrate the need for ultra-sound assessment of lumps before surgical treatment.

Case Report

A 63 years old male presented with a five year history of a slowly enlarging, painless swelling of the left testis. He had been seen in urology clinic one year previously and diagnosed clinically as having a hydrocele. Due to the size of the swelling and associated discomfort the patient now wished to be considered for surgery. Once again clinical examination found a large, lax, soft, non-tender swelling confined to the scrotum. The patient was counselled and scheduled to undergo a hydrocele repair as a day-case procedure.

The procedure was performed under general anaesthetic. The “hydrocele sac” was delivered through a midline scrotal incision. Incision of the presumed tunica vaginalis revealed it to contain green caseous material (Fig. 1). It was not possible intra-operatively to define a healthy or viable testicle separate from the mass. The patient had a normal sized contra-lateral testicle and the decision was taken to perform an orchidectomy. The specimen was sent for pathological assessment.

The specimen consisted of a testicular mass, 110 mm

Figure 1. The incised testicular lesion revealed a caseous material. Pathological assessment revealed the lesion to be an epidermoid cyst.
in maximum dimension with a smooth outer surface and a single thin-walled cyst replacing most of the testis. The cyst contained soft, friable, pale material. Microscopy showed a benign epidermoid cyst with no other tissues present (Fig. 2). The patient made a complete recovery.

Discussion

Epidermoid cysts (ECs) of the testis are benign ectodermal tumours. They account for approximately 1% of testicular tumours in adults with a peak in the third decade [2]. Price [3] defined them as intra-testicular, squamous, epithelial-lined cysts containing keratinised material with neither teratomatous nor adnexal elements. The main differential diagnosis is a teratoma. ECs occur in a similar age group to teratomas prompting workers to suggest that ECs are monodermal, benign equivalents [3, 4]. However, this assertion remains controversial since others have suggested that ECs are in fact sub-types of germ cell tumours [2]. The testicular tumour markers α-fetoprotein and βHCG, raised with germ cell tumours, are normal with ECs [1]. Usually ECs can be diagnosed by ultrasonography which may reveal a classical onion-ring appearance. Maizlin [1] and Johnson [5] have reported that this sign is non-specific and do not support isolated ultrasonographic diagnosis. If the clinical profile is that of a slow-growing, small, intra-testicular tumour with negative tumour markers within a normal testis, testicular-sparing surgery with follow-up has been advocated in the younger patient [3].

In our case the use of scrotal trans-illumination may have altered the clinical diagnosis of a hydrocele. A pre-operative ultrasound scan again may possibly have identified an EC or at least excluded a simple hydrocoele. The patient could then have been counselled and scheduled for an orchidectomy. As a result of our experience with this case we will have a lower threshold for requesting testicular ultrasound. Patients not undergoing ultrasound prior to hydrocele repair should be counselled in the risk of orchidectomy should unanticipated pathology be encountered.

Conflict of Interest

None

References