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Hydatid Cyst of the Spermatic Cord Diagnosed: Like an Inguinal Hernia (A Case Report)

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Abstract | **Case Report**

Hydatidosis is an anthropozoonosis caused by the development in humans of the larval form of taenia Echinococcus granulosis. Most hydatid cysts are found in the liver and lungs. Hydatid cyst of the spermatic cord is extremely rare with only 4 cases reported in the literature. The authors report in this article a new case of hydatidosis of the spermatic cord. It was a 40-year-old man who had been consulting for scrotal pain that had progressed for eight months. The clinical examination revealed a mobile, inguino-scrotal, right swelling. The testicular ultrasound revealed a right inguinal hernia associated with two bilateral epididymal cysts. The patient was operated on to cure his hernia with the discovery of a spermatic cord cyst which was resected during the operation. The pathological examination concluded in hydatidosis of the spermatic cord.

Keywords: Hydatidosis, spermatic cord, inguinal hernia, anatomopathology.

INTRODUCTION

Echinococcosis is a cosmopolitan parasitosis, endemic to Morocco, due to the development in humans of the larval form of Echinococcus granulosus, a small tænia living in the dog's intestine. The liver and lungs are by far the organs most affected by parasitosis [1]. Hydatid cyst of the spermatic cord (KHCS) is exceptional with only 4 cases reported in the medical literature [2-5].

OBSERVATION

We report the case of a 54-year-old man, with no notable history, explored for right scrotal pain developing for 2 days. Clinical examination revealed a painful, irreducible right inguinal swelling without fever, urinary signs or transit disorders, suggesting a strangulated right inguinal hernia.

The patient was operated on to cure his hernia. Intraoperative exploration revealed a cystic formation superinfected developing at the expense of the spermatic cord (Figure-1). The lesion was resected and referred for pathological study. Macroscopic examination showed a calcified wall cyst, measuring 3x2,4x2.5 cm. Histologically, it was lined with an anhist, eosinophilic, laminated, PAS positive wall and had scolices in its lumen (Figure-2). The diagnosis of hydatid cyst of the spermatic cord was retained. The operative consequences were simple.

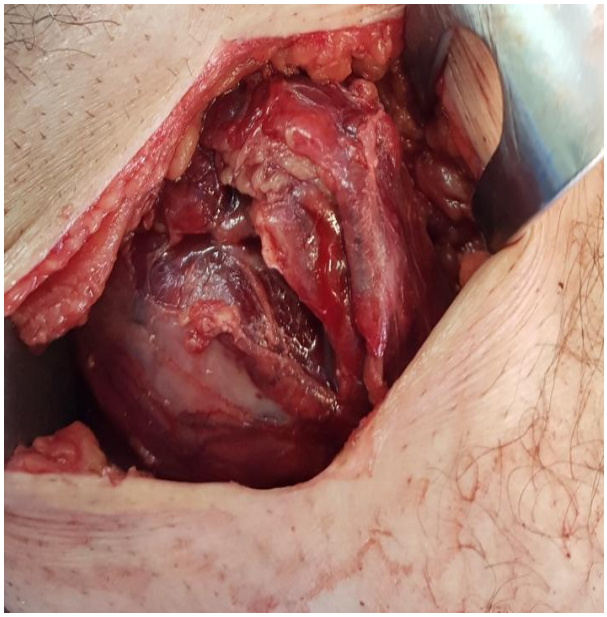

Fig-1: The hydatid cyst of the spermatic cord

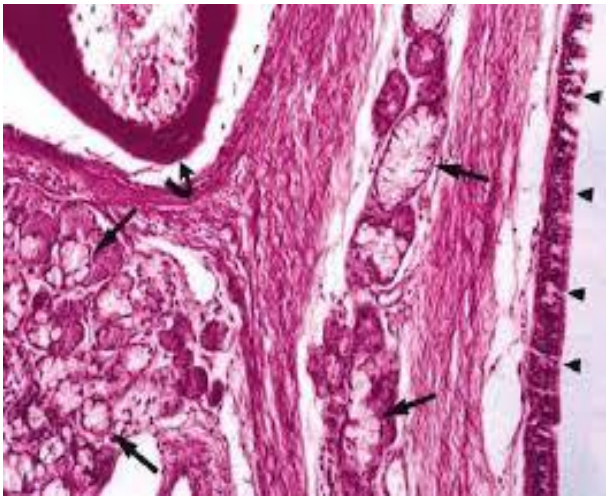

Fig-2: Cuticle: eosinophilic, anhistic, lamellar membranes (HEx100)

DISCUSSION

Echinococcosis is a cosmopolitan anthropozoonosis very common in rural areas, predominantly in North Africa, in some countries around the Mediterranean basin, in New Zealand, in Australia, in Asia, and in America [6]. In Morocco hydatidosis is endemic and constitutes a real public health problem with an annual incidence of 15/100 000 inhabitants and a specific cost of surgical management and loss of animal meat of around 1,260,000 US dollars [7].

The hydatid cyst can be found anywhere in the body, but hepatic (50 to 70%) and pulmonary (25 to 40%) localizations are the most frequent [1]. Usually, the kidney is the most common location in the urogenital tract, accounting for 5% of visceral forms [6]. The KHCS is exceptional. The first case was described by Chandra and Dutt in 1951 [2]. Since then, only three cases have been reported in the medical literature [3-5].

KHCS can occur at any age, affecting children [5], adults [3] or the elderly [4]. The mechanisms explaining the implantation of the parasite at this location are still poorly understood, but it seems that the primary hematogenous dissemination of hexacanth embryos is the most plausible hypothesis [4]. Clinically, KHCS manifests as inguinal swelling, mobile, painless, of varying size, posing a differential diagnosis problem with other causes of inguinal masses, namely hernia, encysted hydrocele of the spermatic cord, lymphangioma or cyst of the spermatic cord ... [4, 5]. Ultrasound can identify the site of the lesion, guide the diagnosis of hydatid cyst and classify it according to the Gharbi classification. However, the diagnosis is rarely obvious, especially for stage I KHCS which are difficult to distinguish from a simple cyst of the spermatic cord or from a hydrocele [4]. Stage IV KHCS are also difficult to diagnose because of their pseudo-tumoral appearance, posing the problem of differential diagnosis with other neoplasms of the spermatic cord [4]. The diagnosis of KHCS is often suspected intraoperatively but is only confirmed after pathological examination [4, 5]. Macroscopic examination usually shows a cystic formation of variable size, ranging from 3 to 10 cm long axis [4, 5]. When cut, the internal wall of the cyst is lined with a whitish, translucent membrane. The lumen contains clear fluid and vesicles of various sizes, round and fragile [1]. On microscopic examination, the cyst has two membranes attached to each other. The outer membrane or cuticle is formed by concentric, layered and anhistic, not positive lamellae. The internal or proligerous membrane, often difficult to see, responds to a fine plasmodial syncytium very rich in cell nuclei, from which the scolices are formed which can sometimes be found in the cystic cavity. At the periphery, the cyst is surrounded by a non-parasitic shell or adventitia, made of fibro-connective tissue, rich in neo-vessels [1, 8].

Treatment of KHCS is surgical. It must be conservative by preserving the testicular vascularization and by keeping a functional vas deferens. In the absence of adhesions with noble elements (spermatic vessels, vas deferens), pericystectomy must be complete [4]. Research and treatment of other localizations of echinococcosis are also essential.

Regular clinical, biological and radiological monitoring over many years is necessary in order to detect early any recurrence or secondary appearance of other locations. This monitoring includes a complete clinical examination, quarterly the first year, semi-annual for two years, then annually for ten years. Likewise, hydatid serology, chest radiography and abdominal and hepatic ultrasound are performed [4].

CONCLUSION

KHCS is an exceptional lesion that is rarely diagnosed preoperatively. However, in an endemic country like Morocco, this entity should always be considered among the diagnostic hypotheses, in the event of any cystic lesion of the spermatic cord, in order to ensure adequate care and as soon as possible.

Informed Consent: The author stated that the written consent was received from the patient who was presented in this study.

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