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Dermatology

Muscular Hydatidosis in a 4-Year-Old Child: A Case Report from Mopti (Mali)

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Abstract | **Case Report**

Introduction: The liver and lungs are the most common sites of human hydatid disease, accounting for 85% of cases. Muscular involvement is rare, even in endemic areas. We report a case of a hydatid cyst of the left thigh in a 4-year-old child. ***Observation:*** A 4-year-old boy, living in a nomadic community, with no significant past medical or surgical history, was referred to the radiology department for investigation of a painless swelling on his left thigh, which had been present for 4 months. Clinical examination revealed a swelling on the anteromedial aspect of the left thigh, measuring 6 centimeters along its longest axis. A standard radiograph of the left thigh showed two opacities: one located in the quadriceps femoris, well-circumscribed and adhering to the deep muscular layers without adjacent bone lesions, and the other located in the tensor fasciae latae muscle, well-circumscribed with diffuse calcification of its wall. The diagnosis of hydatid cyst was made based on the bifocal location. A cystectomy of the anterior thigh was performed with favorable postoperative outcomes. ***Conclusion:*** Muscular involvement in hydatid disease is rare, even in endemic areas. Serological tests are very often negative. Ultrasound plays a significant role and should be the first-line examination for diagnosing hydatid cysts. CT and MRI scans are performed when the diagnosis is uncertain to characterize the relationships between the tissues.

Keywords: Hydatid disease, muscular, child.

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INTRODUCTION

Hydatid disease is a cosmopolitan anthropozoonosis common to humans and many mammals, caused by the development in the body of a dog tapeworm called Echinococcus. granulosis [1].

The preferred locations for human hydatidosis are the liver and lungs and account for 85% of cases [2]. Muscular involvement in hydatid disease is rare, even in endemic areas [3]. This primary and isolated parasitic infection continues to pose a diagnostic challenge, distinguishing it from soft tissue tumors.

Ultrasound and X-ray, which are the key examination for diagnostic guidance, sometimes reveal particular aspects.

We report a case of a hydatid cyst of the left thigh in a 4-year-old child.

OBSERVATION

A four-year-old boy, living in a nomadic community, with no significant past medical or surgical history, was referred to the radiology department for investigation of a painless swelling on his left thigh, which had been present for four months and was progressively increasing in size. On admission, the patient was afebrile and in excellent general condition. Clinical examination revealed a firm, painless, mobile swelling on the anteromedial aspect of his left thigh, with no signs of inflammation, a regular border, measuring 6 centimeters along its longest axis (Figure 1), and mild functional impairment.

Laboratory tests showed a slightly elevated erythrocyte sedimentation rate and a normal complete blood count. A standard radiograph of the left thigh revealed two opacities: one located in the quadriceps femoris, well-circumscribed and adhering to the deep

muscular layers without adjacent bone lesions, and the other located in the tensor fasciae latae muscle, well-circumscribed with diffuse calcification of its wall (Figure 2). Ultrasound confirmed the cystic nature of the opacity in the quadriceps femoris, measuring 45 x 35 mm, and the calcification of the wall of the opacity in the tensor fasciae latae muscle, measuring 8 x 2 cm (Figure 3).

The diagnosis of hydatid cyst was made based on the bifocal location. A cystectomy of the anterior thigh was performed with favorable postoperative outcomes.

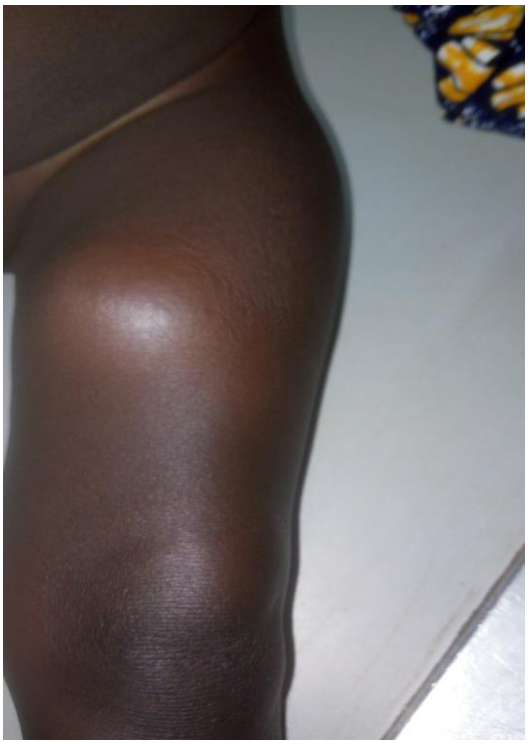


Figure 1: Anterior swelling of the left thigh



Figure 2: Well-circumscribed opacity on the anterior aspect of the thigh on radiography



Figure 3: Quadriceps femoris cyst on ultrasound

DISCUSSION

Muscular localization of the hydatid cyst is rare in children. From a pathogenic point of view, the presence of a muscular localization implies that the hexacanth embryo has passed through the hepato-pulmonary filter to attach to an organ, most often well irrigated, along its migratory path [4].

In our patient, the diagnosis was suggested by a painless swelling of the left thigh, progressively increasing in size with slight functional impairment; the hydatid origin of this can be suspected thanks to the etiological arguments (history of hydatid infection or history of hydatidosis).

Clinically, our patient had indicative signs: a firm, painless, well-defined, and slow-growing mass in a context of well-preserved general condition.

From a paraclinical standpoint, laboratory tests are not always conclusive. The erythrocyte sedimentation rate was slightly elevated, and the complete blood count was normal. Imaging, however, was the most important aspect. A standard X-ray of the left thigh ruled out calcification of the cysts and adjacent bone involvement. Ultrasound helps guide the diagnosis. In our patient, it allowed us to determine the fluid nature of the swelling, its characteristics, and its exact location, and to exclude the possibility of a cold abscess or a serous cyst. A CT scan, which was not performed on our patient, could provide more detailed information than ultrasound, allowing us to determine the number of cysts, their size, their location, and their relationship to the vascular pedicles.

From a therapeutic point of view, surgery remains the reference method and consists of a total pericystectomy [5] and in our patient a cystectomy of the anterior thigh was performed with favorable post-operative outcomes.

CONCLUSION

Muscular involvement in hydatid disease is rare, even in endemic areas. Serological tests are very often negative. Ultrasound plays a significant role and should be the first-line examination for diagnosing hydatid cysts. CT and MRI scans are performed when the diagnosis is uncertain to characterize the relationships between the tissues.

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