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Hydatidosis of the pelvis and hip

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Abstract We report eight cases of osseous hydatidosis involving the pelvis and hip. All patients were treated by curettage and albendazole therapy. In three cases, in which only the ilium was involved, the outcome was satisfactory. The remaining patients required several debridement procedures in combination with chemotherapy and two developed chronic lesions. We conclude that treatment for this condition is difficult and when the osseous involvement is extensive the prognosis is poor.

Résumé Nous rapportons 8 cas de kyste hydatique osseux du bassin et de la hanche. Tous les patients ont été traités par un drainage chirurgical et albendazole. Trois cas, avec atteinte limitée à l'aile iliaque, ont été guéris. Les autres eurent besoin de plusieurs drainages chirurgicaux combinés avec de la chimiothérapie et deux ne guérissent pas jamais. Nous concluons que le traitement est difficile et quand l'atteinte osseuse est étendue, le pronostic est mauvais.

Introduction

Hydatid disease is relatively common in the Mediterranean, the Middle East, Central Asia, East Africa and some areas of South America and northern Canada. Bone echinococcosis occurs in about 1–4% of patients who suffer from hydatid infestation [6], and the most commonly described sites are the vertebrae, the long bones of the lower limbs, the pelvis and hip joint, the ribs and the scapulae [2].

The treatment of choice is a combination of chemotherapy, with drugs such as mebendazole or albendazole, and surgical debridement [6].

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We report here our experience in treating eight patients with osseous hydatid disease of the pelvis and hip.

Patients and methods

Between 1986 and 1999 we treated eight patients with hydatid disease involving the pelvis and hip (Table 1). There were five men and three women, with a mean age of 63.1 years (47–76) years. The infected area was the ilium in five patients, and the ilium and the hip in three. The mean follow-up was 7.4 years (3–13).

The diagnosis was confirmed by means of serology, radiography and computed tomography. Preoperatively, six patients received albendazole (800 mg daily) for 2 months, with a 14-day rest between treatment periods. In two patients, the diagnosis was unclear at the time of surgery.

Results

Patients with lesions of the ilium (cases 1–5)

All patients with lesions of the ilium (Fig. 1 and Fig. 2) were treated by debridement followed by 3 months of treatment with albendazole (800 mg daily, resting 14 days between each month).

One patient with a recurrent lesion required a second debridement procedure 2 years later. This was followed by 3 months of treatment with albendazole. At follow-up she was asymptomatic. Another patient required three debridement procedures combined with chemotherapy during the subsequent 5 years. At follow-up examination 7 years later he was well.

Patients with extensive destruction of the ilium and hip (cases 6–8)

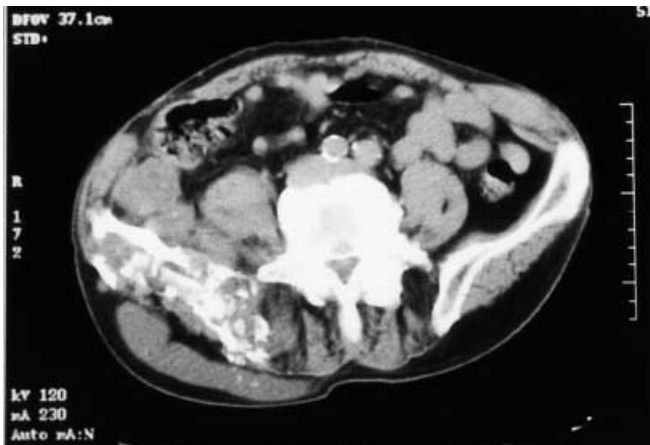
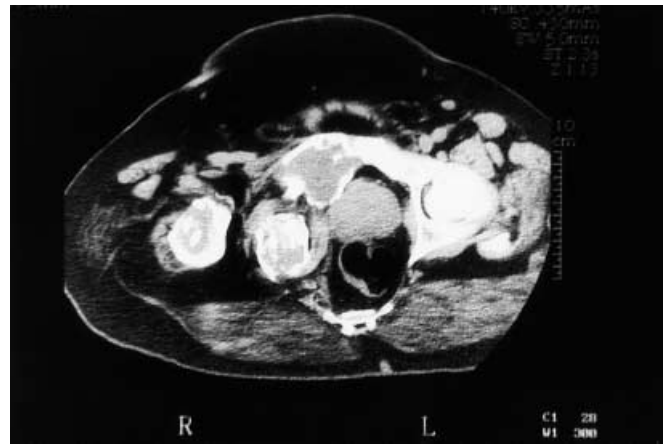
These patients presented with pain in the hip, limitation of movement, and significant swelling around the hip with sinus formation.

A hemipelvectomy was proposed for patients 6 and 7 (Figs. 3 and Fig. 4), but they both refused this option and

Table 1 Characteristics of the patients

Patient number	Age (years)	Sex	Location	Treatment	Follow-up (years)	Outcome
1	56	Male	Ilium and sacral ala	One surgical drainage and CH	3	Symptom-free
2	62	Female	Ilium	Two surgical drainages and CH	6	Symptom-free
3	58	Female	Ilium	One surgical drainage and CH	4	Symptom-free
4	64	Female	Ilium	One surgical drainage and CH	5	Symptom-free
5	47	Male	Ilium and sacral ala	Three surgical drainages and CH	7	Symptom-free
6	68	Male	Ilium and hip	Numerous surgical drainages and CH	13	Non-functioning limb, productive sinuses, hip pain, walking difficulty
7	76	Male	Ilium and hip	Numerous surgical drainages and CH	9	Non-functioning limb, productive sinuses, hip pain, walking difficulty
8	74	Male	Ilium and hip	Three surgical drainages and CH	12	Non-functioning limb, hip pain, walking difficulty

CH, Chemotherapy

**Fig. 1** Lytic lesions of the right ilium**Fig. 3** Extensive lytic lesions of the right ilium and hip**Fig. 2** Computed tomography showing the destruction of the right ilium**Fig. 4** Computed tomography showing the destruction of the right pelvis and hip

repeated debridement procedures combined with chemotherapy were undertaken without success. They remained significantly immobile with persistent chronic sinus formation until they died.

Patient number 8 (Fig. 5) required three debridement procedures combined with chemotherapy in order to achieve cure of the sinuses. He continues to require crutches. Total hip replacement was considered but con-



Fig. 5 Radiography showing lysis of the right femoral head, acetabulum and ilium caused by the hydatid disease

traindicated in view of the extensive local bony destruction.

Discussion

The diagnosis of hydatid disease may be difficult as the immuno-diagnostic tests are often unreliable [5]. The differential diagnosis includes tuberculosis, chondrosarcoma, malignant fibrous histiocytoma, myeloma, metastatic disease, giant-cell tumor and aneurysmal bone cyst [1, 4]. A strong index of suspicion is required when considering the possible diagnosis of hydatid disease. The radiological characteristics (multilocular cysts and reactive sclerosis in a honeycomb formation, involving a large area [1, 7]) suggest the pathology but a definitive diagnosis can only be made by histopathological examination of the resected tissue.

The number of cases presenting to the orthopaedic surgeon in developed countries will increase as immigration increases. The treatment required may be lengthy and difficult, consisting of surgical debridement and antihelminthic chemotherapy. Several debridement procedures may be required [2, 3, 5]. Disappointing results have been reported following total hip arthroplasty secondary to hip involvement [5], although each follow-up period has been short [6, 7]. Large bone grafts and custom-made prostheses are required, and the complication rate is high [7, 8]. When there is extensive destruction of the hip joint, a hip replacement should probably not be attempted.

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