

# Images in surgery

This section features outstanding photographs of clinical materials selected for their educational value or message, or possibly their rarity. The images are accompanied by brief case reports (limit 2 typed pages, 4 references). Our readers are invited to submit items for consideration.

## Spontaneous rupture of primary musculoskeletal hydatid cyst

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A 56-YEAR-OLD FARMER from south Wales presented with a history of right lumbar swelling of 12 months' duration. The swelling was gradual in onset and associated only with discomfort. There was no history of jaundice or any other feature that suggested hydatid liver disease. On examination, there was a 10 × 12-cm lobulated mass in the right lumbar region with no evidence of cough impulse. A computed tomography scan revealed a large multilobulated cystic mass arising within the right erector spinae muscle at the level of L1 and extending down to the level of the S2 vertebra (Fig 1). No intra-abdominal or pelvic extension of disease was identified. The overall appearance was consistent with hydatid disease. The chest x-ray findings were normal. The findings from the complete blood count and liver function tests were normal. The results of the complement fixation test and indirect hemagglutination test were inconclusive.

The patient was scheduled for elective surgical excision. Unfortunately, while the patient waited for the operation, the swelling became more painful and spontaneously burst, discharging copious amounts of purulent material (Fig 2). Surgical



**Fig 1.** Computed tomography scan showing multilobulated cystic mass.

exploration at that time revealed a 10 × 10-cm cavity extending to the inferior border of the 12th rib. Multiple daughter cysts and fragments of the capsule were excised (Fig 3). The cavity was sterilized with alcohol-soaked iodine dressings for several minutes. The patient had an uneventful postoperative period and was discharged in 2 days. The wound was dressed daily with betadine wicks, and complete healing occurred at the end of 4 weeks. The patient did not receive chemotherapy.

### DISCUSSION

Clinical symptoms of hydatid disease depend on the site and size of the cyst. Because this patient's disease involved the lumbar musculoskeletal region,

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**Fig 2.** Spontaneous burst of hydatid cyst.

there were very few symptoms. Cosmetic appearance was the patient's main concern at presentation.

The diagnosis of hydatid disease is mainly clinical and radiologic. Although serological tests are widely used to confirm diagnosis, they carry only an 80% specificity. Complement fixation, indirect fluorescent antibody test, enzyme-linked immunosorbent assay, radio-allergosorbent, and immunoelectrophoretogram tests are among the most commonly used.<sup>1,2</sup>

Radiologic investigations, particularly the sonogram and computed tomography scan, are able to establish the diagnosis with ease when daughter cysts are identified and are very helpful in determining the extent of the disease.<sup>2</sup> Recently, magnetic resonance imaging has been gaining popularity and is becoming the investigation of choice for hydatid disease presenting in the soft tissues when a complex or solid pattern is present.<sup>3</sup>

The management of hydatid liver disease is well-established. The principles of treatment for hydatid disease at unusual sites, including the musculoskeletal region, are essentially the same: adequate surgical excision of all cysts and sterilization of the cavity with scolicidal agents to prevent recurrences. When possible, the residual cavity should be oblit-



**Fig 3.** Multiple daughter cysts.

erated.<sup>2</sup> Although albendazole is used as prophylaxis to prevent recurrences in endemic areas,<sup>2,4</sup> its role in non-endemic areas is not known.

Spontaneous rupture of musculoskeletal hydatid cyst has not been previously reported. This is an unusual presentation of hydatid disease in a non-endemic area and should serve as a reminder that the differential diagnosis of cystic swelling in a musculoskeletal region should include hydatid disease. Thus, all musculoskeletal swellings should be investigated with appropriate radiologic tests to rule out or confirm this diagnosis.

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