A case of tuberculosis of the scapula

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Case report

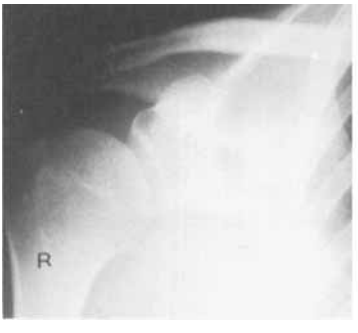
A 23-year-old Kuwaiti lady was admitted to the orthopedic service because of pain and swelling in her right shoulder for the last 6 months and pyrexia of 2 months' duration. Her family physician had treated her with antibiotics and analgesics for more than a month before referring her with the presumptive diagnosis of a scapular tumor.

On admission, she was anemic and had a body temperature of 40 °C. There was no evidence of hepatosplenomegaly or lymphadenopathy. The respiratory and cardiovascular systems were reported to be normal.

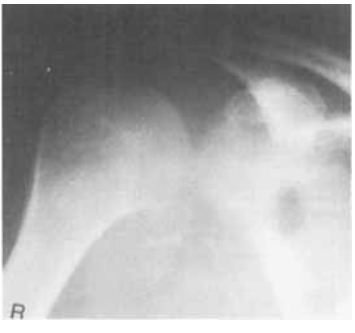
The right shoulder had a swelling with ill-defined borders in the right scapular region that extended into the anterior axillary fold. The overlying skin was stretched, but the local temperature was not raised. The right shoulder joint movements were restricted.

Anteroposterior radiographs of the right shoulder showed a well-defined lytic lesion in the body of the right scapula without evidence of a surrounding sclerosis. The bones of the shoulder joint showed osteopenia, and the joint space was increased with evidence of soft-tissue swelling, which was most pronounced in the anterior axillary fold (Figure 1).

A review of earlier radiographs showed the lytic lesion in the scapular body, but with normal density of the bones and a normal joint space. On the basis of the osteopenia, involvement of the joint, and protracted course of the disease, a confident radiographic diagnosis of tuberculosis of the scapula with involvement of the right shoulder joint was made.



In May 1986, there was a well-defined cystic lesion in the body of the scapula with normal bone density and normal joint space.



At the time of admission in August 1986, there was a well-defined lytic lesion in the body of the scapula, widening of the joint space, osteopenia of the periarticular bone, and soft-tissue swelling, notably in the anterior axillary fold.

In December 1986 (after 4 months of the antibiotic treatment and drainage), the joint space was normal and the scapular lesion was smaller.

In April 1988, the scapular lesion had disappeared and the bone and shoulder joint space were normal.

Figure 1. Tuberculosis of the right scapula.

The possibility that the scapular lesion was due to histiocytosis-X was excluded because of the huge soft-tissue swelling and the joint involvement. Chest radiographs did not show any active or healed lesion.

Laboratory investigations showed Hb 11 g%, a total white cell count 11,000 with 77 percent polymorphs, 19 percent lymphocytes, and 4 percent eosinophils. The ESR was 133 mm/h. Aspiration from two sites brought out thick pus with debris. A direct smear for cytologic investigation confirmed the diagnosis of tuberculosis. The swelling was drained and the patient was treated with antitubercular drugs, which included 600 mg rifampicin, 300 mg isoniazid, and 1 g streptomycin daily for a period of 10 months. Serial radiographs showed reduction of the swelling and bony lesion with restoration of the normal joint space, normal bone density, and complete healing of the scapular lesion within a period of 1 year. The sedimentation rate came down gradually. After a total follow-up time of more than 3 years, the patient remains free from the disease both clinically and radiographically.

Discussion

Isolated tuberculosis of the scapula is rare. Lafond (1958) reported only 1 case of scapular involvement among his 230 cases of skeletal tuberculosis; Martini et al. (1986) reported 1 case of acromion involvement in their study of 125 cases. Silva (1980) reviewed 219 cases of skeletal tuberculosis including 3 with shoulder-joint affection, but no cases had scapular-bone involvement. According to Batman (1978), probably less than 1 percent of the cases of bone and joint tuberculosis involve the shoulder region, and only a small fraction of these affect the scapular bone itself.

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