questionnaire in psychopharmacological investiga-tions—a review. *Psychopharmacology* 1980;71:173–9. 6. Hindmarch 1, Parrott AC, Arenillas L. A repeated dose comparison of dichloralphenazone,

dose comparison of dichloralphenazone, flunitrazepam and amylobarbitone sodium on some aspects of sleep and early morning behaviour in normal subjects. *Br J Clin Pharmacol* 1977;4:229–33. Hindmarch I, Subhan Z. The effects of midazolam in conjunction with alcohol on sleep, psychomotor performance and car driving ability. *Int J Clin Pharmacol Res* 1983;3:323–9.

Sternoclavicular Septic Arthritis as First Manifestation of Brucellosis

SIR—Osteoarticular localization of infection caused by Brucella varies from 10 to 60% of cases [1-3]. The sacrolliac joint is most frequently affected, followed by the lumbar column, and large peripheral joints.

We have seen a patient with brucellosis presenting as sternoclavicular arthritis, a site that is rarely

described.

A 54-year-old cattle raiser presented with a mass at the right sternoclavicular joint, associated with fever, chills and sweating for 3 weeks. He did not have any important medical history. His ESR was 42 mm/h with normal WBC and urine but mild liver dysfunction. Chest radiography and tomography of the sternoclavicular joint were normal and aspiration of the swelling did not give any results. However, the Rose Bengal test was positive, and oral treatment with rifampicin, 1200 mg/day and doxycycline, 200 mg/day was started. Agglutinations to Brucella were positive at 1/1250. Ten days after admission, Brucella melitensis grew from initial blood cultures. Forty-eight hours after admission, the patient was afebrile but with some signs of inflammation of his right wrist and left ankle. Marked uptake in the right sternoclavicular joint was observed on bone scans. Other areas with less intensity were apparent in the wrist and ankle. The bi-dimensional echocardiogram was normal.

The swelling in the joint increased despite antibiotics and surgical drainage was performed with abundant egress of pus. Brucella melitensis was isolated in the material obtained. The patient was maintained on rifampicin for 6 weeks and doxycycline for 6 months. The patient was asymptomatic 2 months after beginning treatment.

Sternoclavicular septic arthritis is a well-known

complication in drug addicts; patients with catheters in the subclavian vein; patients with rheumatic and subjects on dialysis [5-11].

Pseudomonas aeruginosa or Generally, Pseudomonas aeruginosa or Staphylococcus aureus are the responsible bacteria, and the mechanism of and the mechanism of spread is haematogenous or by contiguity. Brucellosis is a multisystemic disease which very frequently presents as arthralgias, arthritis and osteomyelitis [4]. Septic arthritis of the big peripheral joints is the least common joint manifestation [1]. However, sternoclavicular involvement is rare and we have found only one previously reported case [12]. Our experience suggests that surgical drainage is required for adequate treatment of the arthritis at this site.

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Country, Bilbao, Spain Kelly PJ, Martin WJ, Schirger A, Weed LA. Brucellosis of the bones and joints. JAMA 1960;174:347-

Serre H, Kalfa G, Brousson A, Sany J, Bertrand A, Simon L. Manifestations osteo-articulaires de la brucellose. Rev Rhum 1981;48:143-8.

Norton WL. Brucellosis and rheumatic syndromes in Saudi Arabia. Ann Rheum Dis 1984;43:810-5.

Young E.I. Human brucellosis. Rev Infect Dis 1983;5: 821–42.

Bayer AS, Chon AW, Louie JS, Guze LB. Sternoclavicular pyoarthrosis due to Gram-negative bacilli. Arch Intern Med 1977;137:1036-40.

Roca RP, Yoshikawa TT. Primary skeletal infections in heroin users: characterization, diagnosis and therapy. Clin Orthop 1979;144:238-48. Lee YH, Kerstein MD. Osteomyelitis and septic

arthritis: a complication of subclavian venous catheterization. N Engl J Med 1971;285:1179–80.

Manny J, Haruzi I, Yosipovitcit Z. Osteomyelitis of the clavicle following subclavian vein eatheterization.

Arch Surg 1973;106:342-3.

9 Sokoloff L, Gleason IO. The sternoclavicular articular contents of the sternoclavicular articular contents.

tion in rheumatic diseases. Am J Clin Pathol 1954;24:

10. Gaulhofer-de-Klerck EH, Vandam G. Septic complications in rheumatoid arthritis. Acta Rheumatol Scand 1963;9:254-63.

Steen J, Pedersen JH. Osteomyelitis of the clavicle following percutaneous subclavian vein catheterization. Dan Med Bull 1978;25:260-1.

Lam K, Silverstein LM, Carlisle RJ, Bayer AS. Disseminated brucellosis initially seen as sternoclavicular arthropathy. Arch Intern Med 1982;142:1193-4.