

Lesson of the Week

Brucellar spondylitis presenting as right hypochondrial pain

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A diagnostic problem arose when many investigations failed to elucidate the cause of right hypochondrial pain and fever in a young Yugoslavian woman. A diagnosis of brucellosis was finally made on the basis of serological tests. Appropriate antibiotic treatment produced notable clinical improvement.

Case report

A 24 year old Yugoslavian woman, who had lived in Britain for 18 months, presented with right loin pain, dysuria, and frequency of micturition of two months' duration. After collection of a urine sample co-trimoxazole tablets were prescribed. No bacterial growth was obtained from the urine culture.

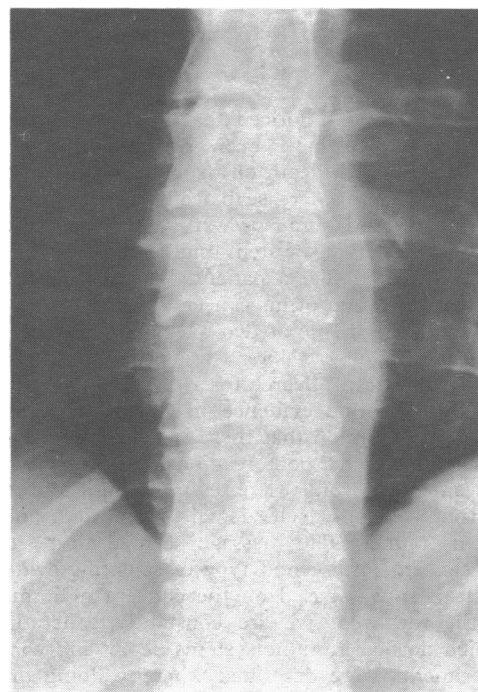
Six days later she was admitted to a surgical ward with intense right hypochondrial pain of a colicky nature with radiation to the right shoulder tip and associated symptoms of nausea, vomiting, weakness, and rigors. She had been well previously and reported no unusual dietary habits or contact with livestock. On examination she had a fever of 37.8°C and a tachycardia of 88/min. There was slight pallor but no lymphadenopathy. Abdominal findings were of an undistended soft abdomen with tenderness in the right upper quadrant but no features suggesting peritoneal irritation. The liver edge was just palpable. Rectal and pelvic examinations were normal. There were no abnormalities of the spine apart from minimal tenderness in the lower thoracic region. No abnormal neurological findings were detected.

Serial blood counts, biochemical studies, urine and blood cultures, and x ray examinations of the chest and abdomen were performed. The only abnormal findings were consistently raised erythrocyte sedimentation rates (always greater than 75 mm in the first hour) and increased serum aspartate transaminase activity of 55 IU/l on one occasion. The Mantoux test was weakly positive. In keeping with the presumptive diagnosis of acute cholecystitis intravenous ampicillin 500 mg six hourly was given, but the abdominal pain and low grade fever persisted.

Abdominal ultrasound, oral cholecystography, intravenous urography, and computed tomography of the right upper quadrant failed to show any abnormality. In the search for intra-abdominal sepsis a radioactive gallium scan showed increased uptake of isotope in the lower thoracic spine. X ray films and tomograms of the area showed a paravertebral shadow around the bodies of the seventh to the tenth thoracic vertebrae with destruction of the inferior part of the body of the eighth and

Brucellar spondylitis is a rare cause of right upper quadrant pain

of the superior part of the ninth. Tissue obtained by needle biopsy of the eighth thoracic vertebra was submitted for culture and for histological examination. Cultures were negative, but histologically the features of a non-caseating granulomatous reaction were identified.



Anteroposterior radiograph of the affected area of the thoracic spine.

While numerous other serological studies were negative, high titres of brucellar antibodies were obtained by direct agglutination (1/640), complement fixation (1/128), and brucella radio-immunoassay (IgG 70 U/ml and IgM 8 U/ml). The titres were so high as to be virtually diagnostic of active brucellosis. Oxytetracycline 500 mg six hourly given by mouth produced a dramatic relief of symptoms and the patient's temperature returned to normal within 48 hours.

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Comment

Brucellosis in Britain is usually caused by *Brucella abortus* and mainly affects those in direct contact with cattle or their unpasteurised milk products.^{1 2} Bone and joint brucellosis constitutes about 9% of brucellosis infections and the spine is the commonest site of skeletal infection.^{1 3} Brucellar spondylitis most often presents with back pain and leg pain, resembling an intervertebral disc protrusion. Girdle pain has been reported.^{1 2 4} Paravertebral abscesses are uncommon in brucellosis.⁴ It is most unusual for brucellar spondylitis to present as right upper quadrant pain. A paravertebral abscess could produce nerve root and diaphragmatic irritation, resulting in right hypochondrial pain with radiation to the right shoulder tip. In skeletal brucellosis the cultures are frequently negative in keeping with the late stage of the disease.^{3 4} Early serological studies may be crucial to the diagnosis. Treatment with tetracyclines and streptomycin is

successful in most cases.¹⁻⁴ Surgery is indicated for spinal brucellosis only if there is instability, vertebral collapse with cord compression, or failure of a thick walled paravertebral abscess to respond to medical treatment.⁴

References

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USSR Letter

Commissions for complaints

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Two separate but closely related topics that receive scant attention in the Soviet medical press are the evaluation of treatment and the investigation of complaints from patients or their relatives. Whether this neglect can reflect a true lack of interest among practising clinicians seems most doubtful, if only because the matters bear so directly on their professional activity. However that may be, this article draws on three sources that go some way towards filling the information gap and indicating what the relevant administrative machinery entails for Soviet doctors.

Since there appears to be no published account of the complaints system's origins, only a brief conjectural explanation can be offered. One catalyst that suggests itself readily enough is demand from patients whose increasingly high educational standards give them a greater critical awareness of and access to the database of medical science. But the demystification of medicine, though a reality, does not imply acceptance by the government of consumerism and individualistic concepts such as the "right to know." A more cogent explanation is the long established power of laymen (which was legitimated by the Revolution) to control and scrutinise medical activity far more pervasively than they can in Western democracies. The latter reading certainly helps to explain why the investigation of complaints is linked so closely to the hierarchical monitoring of standards and imposition of disciplinary sanctions.

Quality control

For many years, and at least since the late 1940s, health

service units have been required to investigate each fatal outcome of treatment occurring in their catchment area. The interrogation of evidence, so to speak, is carried out at "clinical-anatomical conferences" which make detailed comparisons of clinical diagnosis and the results of postmortem ("pathological-anatomical") examinations. In cases where the findings differ the basic reasons for diagnostic error must be reconstructed. If, as a consequence of this initial investigation, gross errors of commission or omission are discovered the matter will be referred to either the hospital's "treatment committee" or to a "treatment control commission." As one source makes clear, the functions of this commission include consideration of written statements by patients or their relatives that "treatment has been carried out incorrectly."

Investigation of complaints by this machinery occurs not only at the local hospital level; to handle more complex and contentious cases variants on the basic pattern can be set up by district, city, or regional health departments and even by republican ministries or the all-Union Ministry of Health. Presumably it would be normal for complaints against the most senior doctors to be heard at a higher level than the unit in which they work. There is evidence to suggest that government has accepted the principle of composing commissions from experienced specialists to ensure that the inquiry is objective and well informed.

As would be expected, considerable weight attaches to written evidence in the form of hospital case notes ("the history of the illness"), records of outpatient treatment, pathology reports, and so on. But the investigation also extends to interviewing the responsible doctor and other staff concerned in the case under review. More than that, the commission is expected to examine the broad organisational context: to be specific, it may implicate such factors as poor accommodation, excessive numbers of patients, shortages of staff, low qualifications of staff, and shortages of diagnostic equipment.

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