A CASE OF BRUCELLOSIS WITH NEUROLOGICAL COMPLICATION

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BRUCELLOSIS is common in East Africa and several cases have been seen in both British and African troops during the past year.

The clinical picture of the neurological complications of undulant fever has been fully reviewed by Nelson-Jones (1951), but the association of central nervous system damage and this disease appears to be uncommon in Kenya. Wright, Cooke & d'Souza (1953), record only one case with slight meningitis in a review of 70 cases observed between 1948 and 1952.

CASE HISTORY

A British officer aged 35 was admitted to hospital on 14th January, 1955, with two weeks' history of fever, malaise, headache and muscle pains. The muscular pains were mainly present in the trunk and upper limbs. On admission his temperature was 99.4°F. but examination showed no other abnormalities. The spleen was not palpable and there were no signs of C.N.S. involvement.

The results of investigations were as follows: W.B.C.—4,250 per c.mm. (N 46%, L 44%, M 4%, E 6%); E.S.R.—3 mm. in 1 hour; chest radiograph—normal; agglutination tests (15/1/55)—Widal, not significant; Weil-Felix, not significant; Brucella abortus, 1:10,240; Brucella melitensis, 1:640.

During the next 48 hours he continued to run a pyrexial course (up to 101°F.), but cultures from the blood, faeces and urine grew no pathogens and repeated blood films showed no parasites. On 18/1/55 he was still complaining of aching in the muscles of the shoulders and both arms, and at this stage examination of the central nervous system revealed only a moderate nuchal rigidity. Lumbar puncture (18/1/55) revealed a clear fluid under no increase of pressure. Cells, 58 per c.mm.; protein, 140 mg. per 100 ml.; chlorides, 714 mg. per 100 ml.; culture was negative. The following day the patient noticed weakness of the right arm which was found to involve the abductors and extensors. There was no sensory disturbance.

In view of the high agglutination titre a ten-day course of aureomycin was started. Two grams daily, in divided doses, were given, but this was reduced to 1 gram daily after three days on account of diarrhoeic symptoms.

There was marked improvement in the general condition within 48 hours. The temperature fell, and remained at normal level while the muscular pains eased. There was little change in the degree of paresis of the right arm and no evidence of spread. On discharge to out-patient physiotherapy on 12th February,
1955, there was still marked weakness of abduction and extension of the right arm with some diminution in the triceps and biceps jerks on this side.

He was seen again in the out-patient department on 15th March, 1955. On this date he felt extremely fit, but still had weakness in the right shoulder muscle group and some wasting was now evident.

Brucella agglutinations now were:

\[ Br. \text{ abortus, } 1:640 \]
\[ Br. \text{ melitensis, } 1:20 \]

**COMMENT**

Although a virus disease might be postulated as a cause of the paresis it is thought that the lengthy history of pyrexial illness and muscular pains before the onset of paralysis makes this unlikely. Nelson-Jones (1951) states that some neurological signs may be late in appearing and slow in recovery in brucellosis.

Although both blood and C.S.F. culture were negative in this case the high blood titre to *Br. abortus* is considered to be diagnostic and the response to treatment with aureomycin would appear to support a diagnosis of brucellosis.

**REFERENCES**