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Bilharziasis of the Spinal Cord

BY

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In a recent edition of the *Central African Journal of Medicine* Dr. E. Taube and I reported two cases of Bilharzial infection of the spinal cord. We commented that such a condition is probably a lot commoner than has been thought in the past. We mentioned several cases known directly or indirectly to us which we considered were probably examples of this condition. The record of one of those (A. J., aged 21), has now come to hand and the details are inserted for the record as a matter of medical interest. To the best of my knowledge, this is the 51st reported case of spinal bilharziasis.

Early in October, 1960, the patient's duty took him to the Odzi and Sabi rivers in Southern Rhodesia. These rivers provided the only water for drinking and washing. In November, he went on leave to the United Kingdom. Whilst on board ship he felt very lethargic. Shortly after arriving in England he suffered first from bronchitis and then from broncho-pneumonia. On 26th December, 1960, he noticed some difficulty with micturiction and on 29th December he was admitted to the Queen Mary Hospital, Roehampton, London, under the care of Dr. G. E. Hoskins, with retention of urine—there was no other physical or neurological abnormality. He was later transferred to the Tropical Unit under Drs. J. Caplan and E. Patrick, by whose kind permission I am reporting this case.

30.12.60 Hb. 102%, Leuc. count 9,500 (Poly. 4,150/cu.mm. (44%). Eos. 3,614/cu.mm. (38%), Lynph. 1,421/cu.mm. (15%). LM. 285/cu.mm. (3%). E.S.R. 10 mms. in 1 hour.
Blood Urea—18 mgms.%.
Urine—NAD.

31.12.60 Stool Examination—showed viable ova of *S. mansoni*.

2. 1.61 S.G.O.T.—7 units/100 ml.
S.G.P.T.—14 units/100 ml.
Thymol Turbidity—5.
Schistosome C.F.T.—Positive+++.

3. 1. 61 Rectal biopsy demonstrated viable ova of *S. mansoni*.
Urine—NAD.

4. 1. 61 }
5. 1. 61 } Urine—NAD.

5. 1. 61 During the first week his condition deteriorated to a total paralysis together with impairment, though incomplete, of all moieties of sensation below the level of D.10. He was areflexic with bilateral extensor plantar reflexes. Abdominal reflexes were absent bilaterally.

6. 1.61 Treatment with sodium antimony tartrate commenced (grains 2 b.d. I.M.) and a total of 34 grains was administered.

9. 1.61 C.S.F. examination—protein—130 mg.% chlorides—710 mg.%, 60 white cells/cu.mm. (E.3/cu.mm. (5%), L. 54/cu.mm. (90%), P. 3/cu.mm. (5%).

10. 1.61 Mylegram showed no obstruction.
CSF examination—protein 75 mg.%, globulin—Nonne Apelt negative, glucose—normal, W.B.C. 54/cu.mm. (L. 52/cu.mm. (96%), E. 2/cu.mm. (4%).

11. 1.61 Prednisolone commenced—60 mg. per day, and administered in decreasing doses to 30.3.61. Patient just able to move the left toe—recovery commencing.

12. 1.61 Rectal biopsy—no ova seen.

13. 1.61 C.S.F. protein 75 mg.%
Schistosomal C.F.T. Positive+++.

23. 1. 61 Hb. 88, WBC 10,600 (P. 7,420 (70%), E. 1,484 (14%), L. 1,484 (14%), LM 212 (2%)).
E.S.R. 48 mms./1 hour. S.G.O.T. 46 units, S.G.P.T. 93 units.

27. 1.61 S.G.O.T. 20 units, S.G.P.T. 62 units.

11. 2.61 Hb. 90, WBC 10,000 (P. 5,500 (55%), L. 2,700 (27%), E. 1,300 (13%), LM 400 (4%), B. 100 (1%).
S.G.O.T. 17 units, S.G.P.T. 21 units, ESR 8 mms./1 hour.

18. 2.61 Absolute blood eosinophil count 400 per cu.mm.

27. 2.61 C.S.F. protein 90 mg.%, 14 cells per cu.mm. consisting of polymorphs and lymphocytes. No eosinophils seen.

9. 3.61 Stools—NAD. Motor power and sensation improving.

10. 3.61 Blood Examination: Hb. 84% WBC 8,700 (P. 4,785 (55%), E. 261 (3%), L 3567 (41%), L.M. 87 (1%). E.S.R. 4 mms./1 hour.

27. 3.61 Hb. 90, WBC 5,400 (P. 3,510 (65%), L. 1,512 (28%), E. 216 (4%), LM. 162 (3%).
S.G.O.T. 40 units, S.G.P.T. 54 units.

28. 3.61 Rectal biopsy—negative.

27. 4.61 S.G.O.T. 23 units, S.G.P.T. 24 units.

9. 5.61 Discharged from hospital. Walking and almost completely recovered.

12. 6.68 Patient seen and examined.

He has been doing full duties for the past six years, but finds that while his legs are relatively sound when walking on flat surfaces, they tire easily on walking up hill. He cannot play sport because of a femoral vein thrombosis which occurred in 1966. Sensation below the umbilicus is slightly diminished. There is some frequency of micturition and has to get up twice nightly. He is chronically constipated. Sexual function is normal.

Comment

This patient falls into that group which we would call "presumptive but not proven" insofar as the schistosomes were not recovered from the spinal cord by biopsy or autopsy. However, bilharzial paraplegia has become sufficiently established as a clinical entity for there to be no doubt in our minds about the diagnosis in this case even though eosinophils were not found in the spinal fluid. It is interesting that this patient developed his disorder early in the disease, immediately after or during the invasion phase (the bronchitis and broncho-pneumonia must presumably be considered an example of the Katayama syndrome) and the incubation period was between 70 and 80 days. In this respect he resembles one of the cases described by Dr. Taube and myself in which the incubation period seems to have been approximately 30 days. Like this latter case, and one described by Zilberg,[2] urinary difficulty was one of the earliest symptoms and occurred before any signs of paralysis appeared. I am not certain whether this has any significance. Although this patient became almost totally paraplegic he made a reasonably satisfactory recovery—Zilberg's case who was totally paraplegic by the time she arrived in hospital, did not recover and probably the earliness with which treatment is commenced is of the greatest importance.

References

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Ossification of a Tuberculoma of Cerebellum: Report of a Case

BY

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Tuberculomata are said to be commonest in young subjects and in these lesions calcification is rare (Capell, 1064). The case reported here is of a middle-aged male African with a tuberculoma of the cerebellum in which there was fairly extensive calcification and ossification.

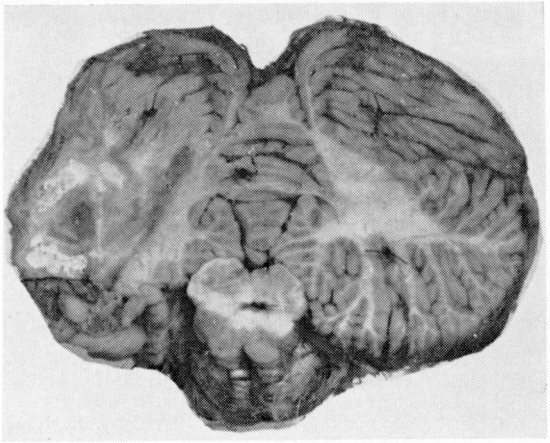

Fig. 1—This is a section through the lower two-thirds of the cerebellar lobes. The left lobe is very atrophic and much of it has been replaced by the healed tuberculoma. The two irregular pale areas of ossification are clearly seen at the edge of the lesion.

Case Report

The patient, a 34-year-old African man, was admitted to the African Infectious Diseases Hospital, Salisbury, in May, 1961, with active pulmonary tuberculosis. His sputum contained fairly numerous acid fast bacilli at that time. Following treatment, he was discharged from hospital in January, 1962. He was kept under surveillance as an outpatient until November, 1965, when, as there was no evidence of reactivity of the pulmonary lesions, no further outpatient attendances were required.

He was admitted to Harare Hospital in January, 1967, complaining of cough, a pleuritic type chest pain and dyspnoea on effort. His heart was enlarged and his liver extended three finger-breadths below the costal margin. No evidence of active pulmonary tuberculosis was found. A diagnosis of chronic rheumatic heart disease was made and he was discharged, somewhat improved, after a fortnight.

He was not seen again till the end of October, 1968, when he was re-admitted to Harare Hospital in advanced congestive heart failure. Despite treatment, his condition deteriorated and he died two days later.

Autopsy Findings

The body was that of a slim, middle-aged male African. The conjunctivae were deeply icteric and the lower limbs were slightly oedematous.