

Ossification of a Tuberculoma of Cerebellum: Report of a Case

BY

W. M. BUCHANAN, M.D., D.P.H.
Senior Lecturer in Pathology,

Tuberculomata are said to be commonest in young subjects and in these lesions calcification is rare (Capell, 1964). 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.

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.



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 The left lobe is very atrophic and much of it has been replaced by the healed tuberculoma.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.

Serous Cavities

The right lung apex was firmly attached to the chest wall by fibrous adhesions. A few ml. of icteric fluid were found in both pleural cavities and the pericardial cavity. The peritoneal cavity contained approximately 1,000 ml. of icteric fluid.

Respiratory System

Both lungs were intensely congested, oedematous and felt moderately firm. The upper half of the right lower lobe was consolidated and section showed numerous small yellow abscesses scattered throughout the consolidated area.

Microscopically there were irregular areas of fibrosis seen in most sections taken from various sites in both lungs. In the consolidated right lobe fibrosis was widespread and there were pyogenic abscesses containing colonies of gram positive cocci. No evidence of active tuberculosis was seen.

Cardio-Vascular System

The heart weighed 490 g. There was gross dilatation of the right ventricle and atrium. The



Fig. 2—This shows a characteristic field from the centre of the tuberculoma showing it to be composed of glial tissue only.
H. and E. x125.

left ventricle and atrium and the heart valves appeared normal.

Central Nervous System

The brain weighed 1,320 g. The left lobe of the cerebellum was adherent to the dura matter and it was very atrophic (Fig. 1). About half of that side of the cerebellum had been replaced by a rather firm mass of tissue. This had a pinkish, gelatinous centre surrounded by a firm capsule of variable thickness. The capsule was partly



Fig. 3—This shows an area of well-developed bone. At the bottom right corner is a small area of amorphous calcium.
H and E x125.

formed by a pale grey and partly of pale yellow calcified material. No lesions were found elsewhere in the central nervous system.

Microscopic examinations of the cerebellar mass showed its centre to consist of glial tissue only (Fig. 2). The greyish part of the capsule was largely composed of collagenous tissue, but in places this was scanty and glial tissue predominated. The remainder of the capsule was formed of amorphous calcified areas and well developed bone (Fig. 3). The cerebellar folia overlying the lesion were atrophic and had been to a large extent replaced by glial tissue (Fig. 4). No evidence of active tuberculosis was seen.



Fig. 4.—One of the cerebellar folia overlying the lesion showing atrophy and gliosis.
H. and E. x44.

There was a fine cirrhosis of liver and marked bile stasis. The kidneys contained several small foci of healed pyelonephritis.

Anatomical Diagnosis.

1. Congestive heart failure.
2. Cor pulmonale.
3. Pulmonary fibrosis—healed tuberculosis.
4. Acute lung abscesses.
5. Tuberculoma of cerebellum.
6. Fine cirrhosis of liver.

COMMENTARY

Tuberculosis granulomas of brain, though now rather a rare finding in European countries, are still quite common in Rhodesia (Gelfand, 1957). It is said that, though supratentorial tuberculomata often cease to enlarge and become quiescent, this is less common in those in the cerebellum (Greenfield, 1963). As classically described, the centres of such tuberculomata have the usual necrotic appearance of caseous material surrounded by a capsule of glial and collagenous tissue among which tubercle follicles may be seen (Greenfield, 1963).

The case described is unusual in that (1) the lesion was completely quiescent, there being no inflammatory infiltrate of any kind. (2) The patient was middle-aged. (3) The necrotic centre of the mass had been completely replaced by glial tissue. (4) There were fairly extensive calcification and ossification. (5) No clinical evidence of central nervous system involvement was ever found.

The first three points would seem to indicate that the lesion was of long standing, probably dating back to the original illness 7½ years before his death.

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