Images in *Thorax*

Cerebral tuberculoma

A 22 year old HIV negative Asian woman was diagnosed with tuberculosis (TB) following onset of cough, fevers, and weight loss. A chest radiograph showed bilateral reticulonodular shadowing and bronchoscopy cultured fully sensitive *Mycobacterium tuberculosis*. She began routine quadruple therapy and her symptoms resolved.

Four months into treatment she developed an occipital headache, tinnitus and diplopia, with papilloedema on examination. A CT scan (Niopam contrast enhanced, 5 mm slices) showed multiple ring enhancing lesions in the cerebral hemispheres and brainstem consistent with cerebral tuberculomas (fig 1), but no signs of raised intracranial pressure. An MRI scan (non-contrast) revealed an asymptomatic tuberculoma in the lower spinal cord (fig 2). The patient was treated with high dose oral steroids and continuation of her antituberculous chemotherapy, with resolution of all symptoms.

Cerebral tuberculomas are a rare but well recognised complication of TB and most cases have associated tuberculous meningitis. Paradoxical development or enlargement of tuberculomas during antituberculous chemotherapy has also been reported, and possibly has an immunological basis.¹⁻³ Treatment is with high dose steroids and continuation of antituberculous therapy, often for a prolonged course. Surgery has been used in isolated cases.⁴⁻⁵ Tuberculomas should be considered in patients with TB presenting with focal neurology or signs of raised intracranial pressure, even when established on treatment.

Figure 1 CT scan showing cerebral tuberculomas (arrowed).

Figure 2 MRI scan of the lower spine showing cerebral tuberculoma (arrowed).

Learning points

- Tuberculomas should be considered in patients with TB presenting with focal neurology or signs of raised intracranial pressure, even when established on treatment.
- They do not represent failure of antituberculous chemotherapy, which should be continued for a prolonged course with the addition of high dose steroids.

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REFERENCES

- 1 Hejazi N, Hassler W. Multiple intracranial tuberculomas with atypical response to tuberculostatic chemotherapy: literature review and case report. *Infection* 1997;4:233-9.
- 2 Lees AJ, Macleod AF, Marshall J. Cerebral tuberculomas developing during treatment of tuberculous meningitis. *Lancet* 1980;1:1208-11.
- 3 Chambers ST, Hendrickse WA, Record C, et al. Paradoxical expansion of intracranial tuberculomas during chemotherapy. *Lancet* 1984;2:181-4.
- 4 Nomura S, Akimura T, Kitahara T, et al. Surgery for expansion of spinal tuberculoma during antituberculous chemotherapy: a case report. *Pediatr Neurosurg* 2001;35:153-7.
- 5 Rao GP, Nadh BR, Hemaratnan A, et al. Paradoxical progression of tuberculous lesions during chemotherapy of central nervous system tuberculosis. Report of four cases. *J Neurosurg* 1995;83:359-62.