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Histological surprise: callosal tuberculoma presenting as malignant glioma

I read with great interest the recent case report by Fath-Ordoubadi *et al.*¹ This is an excellent report and the authors are to be congratulated for their good work. They have clearly demonstrated their clinical wisdom. They confirmed the diagnosis through a biopsy as there is no specific clinical or radiological criterion for the diagnosis of tuberculoma of the brain.

These patients usually present with symptoms and signs suggesting an intracranial space occupying lesion. There is generally no extracranial clinical features to suggest the diagnosis of active pulmonary or extrapulmonary tuberculosis nor any definite history of previous pulmonary infection.² Biopsy of the mass lesion remains the scientific ideal for establishing the diagnosis as in the reported case. This should and must be the approach in parts of the world where tuberculosis is rare, although the procedure is invasive and is not without risk.^{3,4}

We treated a group of 24 consecutive patients including 14 reported during a 10 year period without resorting to biopsy. The treatment was based on a strict selection criteria and the response to a 12 week therapeutic test. Cerebral angiography was done only in the first 10 patients who were admitted to hospital for this purpose. It disclosed avascularity of the mass lesion in all of them. Treatment was generally carried out as outpatients. All patients responded to the therapeutic test and all except one were treated successfully with triple antituberculous drug therapy, for a continued total period of 18 months. A failure of medical treatment occurred in one patient due to non-compliance. In this patient the lesion became smaller and more dense, turning into a calcified 4x2 cm sized irregular mass which needed excision for intractable epilepsy. Another patient needed a ventriculoperitoneal shunt for the treatment of an associated obstructive hydrocephalus. There were 18 patients with solitary and six with multiple lesions, the size of the lesions varying from 3x2 cm to 7.5x6 cm. Even the largest tuberculoma resolved to a tiny calcified nodule needing no further treatment after 18 months.

It is our practice to perform serial CT in these patients. Each of our patients underwent an average of five scans during the course of the investigation (plain and contrast scans), treatment (contrast scan only, after three, six, and 18 months of treatment), and follow up (contrast scan only, one year after treatment was discontinued). No patient needed treatment beyond 18 months due to the resolution of the tuberculomas as shown in the serial CT. Complete resolution of the lesion(s) or its resolution to a tiny calcified nodule was taken as the criterion to stop therapy. Follow up scans showed no recurrence. Response to antituberculous therapy can be assessed clinically but the resolution of a tuberculoma can be judged only by CT. No scan was done in this reported patient during the course of the treatment. I would like to know the reason for continuing antitubercu-

lous treatment for 27 months and the criteria used to stop therapy.

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Lane replies:

We thank Choudhury for his kind comments. Our patient also underwent serial CT during the course of his antituberculous treatment. The lesion appeared quiescent some time before therapy was finally stopped; we erred on the side of caution. The final decision to stop treatment was empirical and we would generally support Choudhury's view that 18 months of treatment should be sufficient.

NOTICE

Second Advanced Course

The Use of Magnetic Resonance Techniques in Multiple Sclerosis

22-23 May 1998

Ospedale San Raffaele, Milan, Italy

Aim: to provide updated lectures from experienced researchers on the use of conventional and non-conventional MR techniques to diagnose multiple sclerosis and to monitor its evolution, either natural or modified by treatment

Main topics:

- 1 MR techniques to monitor clinical trials
- 2 Magnetisation transfer imaging

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G Comi
V Dousset
F Fazekas
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C Gasperini
R I Grossman
M A Horsfield
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L Minicucci
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M A Rocca
M Rovaris
G Scotti
M P Sormani
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BOOK REVIEW

Minimally Invasive Therapy of The Brain. Edited by ANTONIO DE SALLES and ROBERT LUFKIN. (Pp368; DM 375.00.) Published by Thieme Medical Publishers, New York. 1997. ISBN 3-13-106541-9.

The ability of the healthcare systems in the United States to generate new ideas, new technology, and new resources for clinical care never fails to astound those of us who have spent most of our working lives in a cash strapped British system, underresourced and overwhelmed with patients and pathology. The innovative potential of the American system is partly a reflection of sheer numbers of doctors involved in medical care in the United States. In neurosurgery alone there are more neurosurgeons in New York City than there are in the whole of the United Kingdom. However, another factor, and perhaps a more important one in this context, is that this large concentration of medical talent operates in a true market and must compete for market share. One of the effects of the application of market forces to the practice of neurology and neurosurgery in America is the proliferation of books of this type. It is perhaps symptomatic that in the introduction the authors, who are both members of the UCLA Medical School, advertise the courses which they run and on which the material for this book is based. The introduction also contains an email address, a web site address, and the names and addresses of suppliers of CD roms of the content of the book. As practitioners on both sides of the Atlantic have discovered, one of the best methods of advertising in medicine is to publish. As in other markets, for such medical advertising to be successful it is usually necessary for the advertising material to be obviously "state of the art", "glossy", and the title and content should be appropriately "sexy". This book fulfils these criteria on all counts. Minimally invasive therapy is currently "sexy" and is thus a field of endeavour ripe for "niche" marketing. However, despite its "state of the art" pretensions, in the neurosciences minimally invasive therapy has a long and illustrious history. The stereotaxic technique was first described by Horsley and Clarke in 1908 and was first applied to patients in 1947 by Spiegel and Wycis. Similarly, neuroendoscopy was first performed by Dandy in 1922. Although minimally invasive techniques in neurosciences have been around for a very long time indeed; what is new is the marriage of these techniques to modern imaging and computing technology. If the application of information technology in other fields is anything to go by an explosion of new developments in this field can be expected. Although there is little which is completely new in the book, it does provide a useful overview of the various areas where such techniques are beginning to be applied and it will be interesting to see how a second