

SERIAL SCANNING OF A FATAL  
ENCEPHALOPATHY

C. G. H. West and I. V. Allen. Institute of Neuro-  
logical Sciences, Royal Victoria Hospital, Belfast.

A 15 year-old right-handed schoolboy suffered frontal headaches and then a transient aphasia and left hemiparesis from which he made a complete recovery. A month later, his headaches returned, and following a fit, he again became aphasic but now with a right homonymous hemianopia and dense right hemiparesis. His condition improved slowly over 3 weeks, but then his conscious level rapidly deteriorated and he died 4 months after the onset of symptoms. A meningeal reticulum cell sarcoma was found at post-mortem examination.

Serial computerised tomograms were performed during his illness. The first, at the start of his symptoms, revealed an illdefined area of mixed density in the right frontal lobe, after the injection of contrast. The cerebrospinal fluid was normal, and it was felt that he was recovering from a low-grade encephalitis. The second scan, at the time of his relapse, showed a florid enhancement of the right frontal lesion, and a poorly defined abnormality in the left parietal region which accounted for his physical signs. A right frontal trephine biopsy performed in an effort to establish the diagnosis, proved inconclusive, but the appearances were highly suggestive of a viral encephalitis. He did not respond to treatment with Acyclovir, and subsequently virus antigens were not detected by immunofluorescence and no virus particles were seen on electron microscopy. A third scan performed 17 days later, showed apparent resolution of the right frontal lesion with reduced enhancement compared with the earlier study. The left parietal abnormality was now much more obvious, resembling the right-sided lesion in the previous scan.

The final diagnosis is not in doubt. While it is well known that lesions may enhance increasingly with time, the reverse must also be true, for what we took to be a resolving lesion was in reality a progressive tumour losing its ability to enhance. Such failing enhancement may provide a diagnostic pitfall for the unwary.