SELF ASSESSMENT QUESTIONS

From confusion to coma: a catastrophic deterioration

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Answers on p 56.

A previously well 45 year old woman presented to the local casualty department with a one day history of generalised headache, neck stiffness, and blurred vision. On examination she had a temperature of 38°C, a pulse of 80 beats/min, and a blood pressure of 130/80 mm Hg. Neurologically, she had spontaneous eye opening and was able to obey commands, although she had confused speech (Glasgow coma scale (GCS), 14). Pupils were equal and reactive with no cranial or peripheral neurological deficits. Blood tests showed a raised white cell count of $20.9 \times 10^9/l$ with a neutrophilia ($19.2 \times 10^9/l$). Computed tomography (CT) of the brain was performed (fig 1), on the basis of which the patient was referred to the regional neurosurgical unit. While awaiting urgent transfer, however, her clinical condition suddenly deteriorated. There was no eye opening or verbal response, although she flexed to painful stimuli (GCS 5). She was intubated and

ventilated before transfer. On arrival at the neurosurgical intensive care unit, she was found to have bilaterally fixed and dilated pupils, with no corneal or gag reflexes. There was, however, abnormal flexion of the left upper limb. She was given mannitol and urgent repeat CT was carried out (fig 2). An operation was then performed, but postoperatively she failed to show any clinical improvement and died the next day.

Questions

- (1) What does figure 1 show and what is the differential diagnosis?
- (2) How does figure 2 relate to the change in the patient's clinical condition?
- (3) Discuss the management of this condition.

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Figure 1 Computed tomography of the brain at the initial presentation.

Figure 2 Computed tomography of the brain following the sudden deterioration.