QUESTION 19

A 65yo man presents with sudden onset of severe headache. He appears generally unwell and has a blood pressure of 90/60mmHg. There are no focal neurological signs and visual field testing is normal. An urgent non-contrast T1 weighted magnetic resonance imaging (MRI) scan is shown below (coronal view).

Which of the following is the most appropriate first step in management?

A. Glucocorticoid administration
B. Emergency transphenoidal surgery
C. Pituitary radiotherapy
D. Dopamine agonist therapy
E. Somatostatin analogue therapy

This patient has pituitary apoplexy.
Apoplexy is defined as a sudden neurological impairment usually due to a vascular process (ie. haemorrhage or infarct).

Pituitary apoplexy is characterised but thunderclap headache (95%), vomiting (69%), decreased conscious state, visual changes (50-60%), ocular paresis (78%) and hormonal dysfunction.

There is usually an existing pituitary adenoma.
CT often normal. MRI is most sensitive test. In the first 3-5 days haemorrhage within the sella is isointense or hypointense on T1-weighted images and hypointense on T2-weighted images. Usually heterogeneous appearance of pituitary.

Treatment:

- Medically stabilise the patient
- High-dose corticosteroids
- Immediate evaluation of EUC, glucose and pituitary hormones and treat as necessary
- Once medically stable, transphenoidal resection

Correct answer is A – corticosteroid administration.

While B (surgery) is part of the management, it comes later in the treatment.

C (radiotherapy) does not have an immediate role in the treatment of apoplexy. It may be used as one of the later option for treatment of pituitary adenomas if surgery fails.

D and E are forms of medical management for specific types of pituitary adenomas – dopamine for prolactinomas and somatostatin for GH adenomas.