A Serious Cause of Headache in the Acute Medical Unit:
It’s not all SAH and Meningitis

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Introduction
Headache is a common presentation to AMU accounting for 3% of referrals\(^1\). Whilst providing an accurate diagnosis is desired, ruling out a serious cause of primary severe headache is paramount. Subarachnoid haemorrhage, meningitis and space occupying lesion account for less than 10% of all headaches and an argument can be made for ambulatory assessment of primary severe headache\(^1\).

Rarer causes of headache, which carry significant morbidity and mortality, will present to Acute Medical Units and knowledge of their symptom cluster is essential to allow rapid diagnosis and appropriate treatment.

We present two cases of Pituitary Apoplexy presenting to an AMU within a 12 month period.

Case 1
A 66 year old lady presented with a sudden onset headache preceded by a month long history of vague constitutional symptoms. The day prior to admission she complained of visual disturbance and profound vomiting. She was taking Clopidogrel for secondary stroke prevention. Examination revealed her to be pyrexial, tachycardic and hypotensive and she was treated as having sepsis of unknown source. Despite this she failed to improve and review of her admission blood tests showed low TSH and low free Thyroxine. Assessment of her steroid state showed a low baseline cortisol (43 nmol/L) with a suboptimal rise (207 nmol/L). An MRI of the pituitary was consistent with pituitary apoplexy into an previously unknown pituitary adenoma (Fig 1). Neurosurgical intervention was not required. After steroid and thyroxine replacement her symptoms rapidly resolved and she was discharged for follow up by the joint endocrine/neurosurgical service.

Case 2
A 29 year old lady presented with a sudden onset occipital headache associated with vomiting and photophobia. Initial CT brain showed an abnormal pituitary (Fig 2) and CSF analysis was negative for a SAH. Random cortisol was only 40 nmol/L with inappropriately ACTH levels and a normal short synacthen test. MRI brain confirmed a pituitary apoplexy (Fig 3).

Features and Initial Management of Pituitary Apoplexy\(^2\)

**Clinical Features**
- Severe Acute Frontal Headache (100%)
- Ocular Palsy (70%)
- Bitemporal Hemianopia (75%)
- Vomiting
- Meningism
- Photophobia
- Stroke

**Management**
- Baseline Pituitary Function
- MRI Scan
- Visual Field Assessment
- Steroid Replacement if
  - Unstable
  - Decreased GCS
  - Reduced Visual Acuity
  - Visual Field Defect
  - 9 am cortisol < 550
- Neurosurgical/Endocrine input
- HDU facilities available

Conclusion
Pituitary apoplexy is an uncommon cause of headache. However, it carries significant morbidity and mortality. The diagnosis is often delayed, but awareness and prompt treatment significantly improve patient outcome.

References
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