Atypical presentation of Pituitary Apoplexy with fevers and gradual onset of headaches - Would you miss it?

D Lunda Ngandu; H Rehmani; Y Subramanian; B Hossain; G Mlawa

1. Queens Hospital Romford 2. King George Hospital

Introduction

Pituitary apoplexy is both a medical and an endocrine emergency. It can typically present with sudden onset of headaches, impaired level of consciousness, fever and visual disturbances, nausea or vomiting. Apoplexy ensues when pre-existing pituitary tumour presumably outgrows its blood supply leading to ischaemia, necrosis and haemorrhage or infarction.

Case

A 31 year old man presented with 3 months history of gradual onset of headaches. He attended hospital as he had ongoing headaches with fevers (temperature 39 C) and progressive worsening vision (left sided visual loss, and reduced vision on the right side and right total 3rd cranial nerve palsy) three days prior to admission. He was not confused and his Glasgow Coma Scale(GCS) was 15/15. His background includes long standing gynaecomastia and low libido, and inflammatory bowel disease.

His blood test showed: Hb 105, WCC 14.9, CRP 331, sodium 137, potassium 3.6, urea 5.3.

His hormonal profile showed TSH 0.99, FT4 6.8, FT3 1.7, cortisol 427, LH 1.4, FSH 1.5, Prolactin 3597, testosterone 1.2, IGF-1 139, WCC.

He had MRI pituitary which revealed macroadenoma with suprasellar extension with central necrosis and pus in the sphenoid sinus and ethmoid sinus.

He was treated with IV antibiotics and had image guided endoscopic trans-phenoidal drainage of sphenoid and ethmoid pus and a gross total excision of large pituitary adenoma.

Immunohistochemical staining for pituitary show positive staining for prolactin.

He was discharged home on hydrocortisone, and levothyroxine.

Case progress

- Gradual post-op improved vision
- Complete vision recovery to the left eye with persistent diplopia
- Ophthalmology follow up:
  - Right third nerve palsy improving
  - Correction with prisms not required
- Histology was in-keeping with prolactinoma
- On hormone replacement therapy and carbidopa

Discussion

Pituitary apoplexy remains a potentially life threatening condition. Its presentation may vary from that of relative benign to catastrophic presentation with neurological deficits.

The presentation with gradual onset of headaches and gradual deterioration of vision and clinical features of sepsis is atypical presentation and may lead to delayed diagnosis.

Conclusion

Pituitary apoplexy is both a medical and an endocrine emergency. The management of pituitary apoplexy should be in a multidisciplinary setting. Early involvement of neurosurgical team and endocrine team is vital for the right and appropriate treatment of the patient.