Pituitary Apoplexy – A Case Series

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Introduction:

Pituitary Apoplexy whether due to haemorrhage or infarction remains a rare endocrine diagnosis. Recent UK guidelines[1] have emphasised the lack of published evidence in the management of this condition. We present our experience of 18 current cases (11 male, 7 female).

Presentation:

Presenting symptoms were headache and meningism in 72% of patients with ocular palsy in two cases (11%) and visual field defects in four (22%) of the patients.

Clinical suspicion of Apoplexy was high in 72% of cases.

Interestingly, five out of 18 (28%) of patients presented with non-specific symptoms of fatigue and no headache or any other clinical signs.

Management:

Fifteen (83%) of cases were managed conservatively, three (17%) of the patients with severe neuro-ophthalmic signs required and received urgent pituitary surgery with excellent post-operative outcome. None of the above cases required pituitary radiotherapy.

Endocrine Treatment and Follow–up:

In terms of initial endocrine deficit, 13/18 patients required steroid replacement ab initio (4 patients were successfully weaned-off, but two more had to be subsequently started on steroid replacement), consequently 11/18 (61%) currently continue on steroid replacement.

Four of the patients required Levothyroxine from diagnosis with 50% currently on Thyroid Hormone replacement.

Two of the eleven male patients (18%) were hypogonadal at diagnosis and 6 more are currently on Testosterone replacement therapy (72%).

One patient developed partial Diabetes Insipidus and is on Desmopressin and three patients are on Growth Hormone replacement.

Four (22%) of the patients are so far requiring no hormone replacement therapy.

Two patients are on Dopamine agonist therapy for their macroprolactinomas. All other tumours are currently believed to be non-functional.

Interesting Points:

In two cases, clinical and endocrinological evidence indicate recurrent pituitary apoplexy.

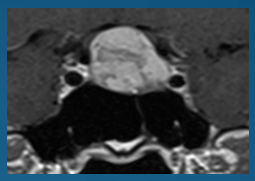
In all cases there was no evidence of tumour re-growth. Tumour shrinkage was on average 34.8% (tumour width) and 25.1% (tumour height) over an average of 3.4 years.

Conclusion:

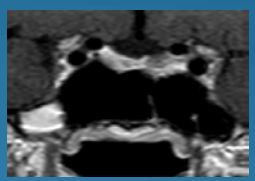
Although the majority of cases have presented with the classical picture of sudden onset of headache and meningism, this was not universal. Endocrinologists do need to be aware that apoplexy can present with non-specific, non-classical symptoms.

Patients with Pituitary Apoplexy without neuro-ophthalmic signs or mild and stable sings can be considered for a conservative management approach with careful monitoring, which in our experience provides satisfactory outcomes.

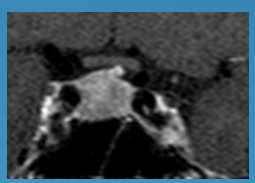
1: *UK Guidelines for the Management of Pituitary Apoplexy.* Rajasekaran S et al. Clin Endocrinology 2011; 74: 9-20



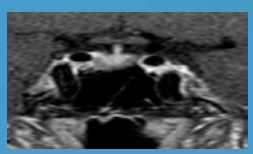
Patient A, Image 1 : MRI Pituitary with Gadolinium on presentation with chronic headaches, diplopia, reduced visual acuity and bi-temporal quadrantanopia. Underwent urgent trans-sphenoidal pituitary surgery.



Patient A, Image 2 : MRI pituitary with Gadolinium at 3 months post-op. No residual visual field defects were detected, visual acuity is back to normal and the patient has been successfully weaned-off hydrocortisone.



Patient B, Image 1: MRI pituitary with Gadolinium at presentation.



Patient B, Image 2: MRI pituitary with Gadolinium at 1 year post-diagnosis showing significant gland shrinkage.