

PITUITARY TUMOUR PRESENTING WITH PSYCHOTIC SYMPTOMS WITHOUT NEUROLOGICAL SIGNS

Pituitary tumours are most commonly associated with signs and symptoms of increased intracranial pressure, visual disturbances and endocrinological changes.⁽¹⁾ Many of them are known to cause cognitive impairments,⁽²⁾ but only a few cases have been reported in which the presenting symptoms are primarily psychiatric in nature. Here, we describe a rare case of acromegaly with pituitary tumour presenting with psychotic symptoms.

A 35-year-old Chinese man with no previous psychiatric history presented to our psychiatric facility after being arrested by the police at the airport, where he touched a stranger claiming her to be his wife. It was later found out that he had been behaving strangely, believed that his employer was trying to poison him and had also been seen talking to himself one week prior to the admission. On serial mental state examinations during his stay in the hospital, he showed marked emotional lability, fluctuations in orientation and psychotic symptoms in the form of grandiosity, persecutory delusions and delusional misidentifications. At times, he was seen talking to himself, although he denied hearing any voices. There was no impairment of consciousness. His mood was irritable. Physical examination revealed acromegalic features (brow and jaw protrusion, skull expansion, large hand and skin thickening), although there were no neurological signs. Visual acuity and visual field examination were also normal. Routine blood tests, including thyroid profile, showed only a raised erythrocyte sedimentation rate (18 mm/hr). Urine was negative for drug abuse. Even after two weeks, the patient did not show any improvement with risperidone, which was then changed to haloperidol, and sodium valproate was added for augmentation as well as for mood symptoms.

In view of the atypical nature of the psychosis with fluctuating confusion not improving with antipsychotics, computed tomography of the brain was done, which revealed sellar and suprasellar mass compressing the optic chiasm, particularly on the right side. Magnetic resonance (MR) imaging of the brain was done on the same day, which suggested a large pituitary macroadenoma with compression of the optic chiasm and extension into the left cavernous sinus. (Fig. 1)



Fig. 1 MR image of the brain shows a large pituitary macroadenoma.

The initial blood workup for pituitary tumour showed raised prolactin (482 mIU/L) and insulin-like growth factor-1 (678 ug/L). Testosterone level was 5 nmol/L (low normal) and cortisol level was 284 nmol/L. The patient was transferred to a general hospital for further evaluation and management. He was diagnosed with acromegaly due to pituitary macroadenoma with hypogonadism and hypocortisolism. He was treated with hydrocortisone, olanzapine, benzhexol, sodium valproate and lorazepam while awaiting surgery.

Although there have been reports of pituitary tumours that present with psychiatric manifestations,⁽¹⁾ a study of 51 patients with acromegaly revealed no increase in psychiatric morbidity.⁽³⁾ Jaquet hypothesised that there is an underlying dopaminergic

abnormality in acromegaly, which could be related to the psychotic presentation.⁽⁴⁾ Despite a lack of information regarding the pathophysiology, this particular case emphasises the importance of ruling out an organic cause for atypical presentation of psychosis. The absence of neurological signs in this case is consistent with a study of 148 patients with diencephalic tumours in which only 47% had visual disturbances; other neurological symptoms were relatively uncommon.⁽⁵⁾ Due to false negative results on neurological examination, the role of routine neuroimaging needs to be re-examined. Furthermore, MR imaging provides information that is not otherwise available.⁽⁶⁾ This case reinforces the importance of investigations, especially neuroimaging, in atypical presentations of psychosis, which may be the first presentation of rare disorders such as acromegaly.

Yours sincerely,

Arnab Kumar Ghosh, Rajesh Jacob, Satya Rayapureddy

Department of General Psychiatry-1, Institute of Mental Health/Woodbridge Hospital, 10 Buangkok View, Singapore 539747. arnab.kr.ghosh@gmail.com

REFERENCES

1. Izci Y, Karlidere T, Caliskan U, Akay KM. Diencephalic tumours presenting as psychosis. *Acta Neuropsychiatrica* 2003; 15:97-101.
2. Grattan-Smith PJ, Morris JG, Shores EA, Batchelor J, Sparks RS. Neuropsychological abnormalities in patients with pituitary tumours. *Acta Neurol Scand* 1992; 86:626-31.
3. Lishman WA. Endocrine diseases and metabolic disorders. In: Lishman WA, ed. *Organic Psychiatry: the Psychological Consequences of Cerebral Disorder*, 3rd ed. Chichester: Blackwell Publishing, 1998: 507-69.
4. Jaquet P. Evidence for dopamine agonists in the treatment of acromegaly. *J Endocrinol* 1997; 155 Suppl 1:S59-60.
5. Fahlbusch R, Honegger J, Paulus W, Huk W, Buchfelder M. Surgical treatment of craniopharyngiomas: experience with 168 patients. *J Neurosurg* 1999; 90:237-50.
6. Marro B, Zouaoui A, Sahel M, et al. MRI of pituitary adenomas in acromegaly. *Neuroradiology* 1997; 39:394-9.