A CASE OF PITUITARY MACROADENOMA IN A 38-YEAR-OLD NIGERIAN WOMAN

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Background

Pituitary adenomas are the most common tumours in the sellar region. They account for 10-15% of all intracranial tumours: microadenomas are less than 10mm and macroadenomas are greater than 10mm in size. Most adenomas are microadenomas. Prolactinomas are very sensitive to medications and are usually treated with dopaminergic agonists including bromocriptine, carbagoline and quinagolide unlike other adenomas where surgery and radiation therapy might be necessary. The goal of treatment is complete cure and if this not attainable one should aim at reducing mass effect, restore hormonal balance and fertility. There is a lot of morbidity associated with therapy. Pituitary macroadenomas are benign epithelial neoplasms composed of adenohypophysial cells.

Pituitary adenomas are not uncommon presentations in our clinical practice. The prevalence of pituitary adenoma in an African population ranged from 16.8% to 21% in studies from different hospital units in Nigeria. But the challenge with management becomes more daunting as the size of the tumour gets bigger as seen in this woman we present herein, with a macroadenoma. The combination of factors militating against accessing the best of health care available is unconnected with the usual problems affecting health care delivery in Sub-Saharan Africa, including out-of-pocket payments for health services and unavailability of prescribed drugs.

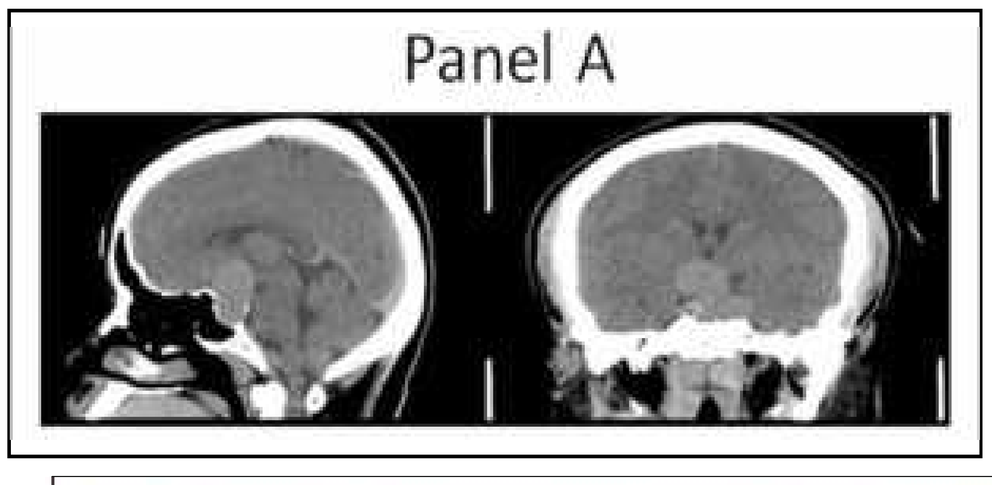
Case report

A 38-year-old lady presented to the endocrine clinic of our hospital more than 2 years ago with a 4-year history of irregular menses and 1-year history of both right sided headaches and blurring of vision. There is associated galactorrhea, weight gain and loss of libido. The CNS examination is remarkable for a right homonymous hemianopia. Examination of the cardiovascular, chest, abdomen and thyroid glands are not remarkable. She was referred from a neurosurgeon on account of pituitary macroadenoma after cranial computerized tomography (CT) confirmation; because she declined surgery, however, was already commenced on 0.5 mg weekly of carbagoline. At presentation she has a normalized serum prolactin level (16 ng/ml) as compared to a baseline of 96 ng/ml. The free T3, free T4, TSH, LH, FSH were within reference range (see table)

A repeat cranial CT was ordered which revealed a further increase in the size of the mass to 37.7mm*28.36mm*32.32mm (panel B) compared to the initial CT (panel A) (35.7mm*21.0mm*27.6mm). Carbagoline was increased further to 1 mg weekly and noticeable changes in symptoms include: return of menses, less frequency of headaches and improved vision on the right eye. However, another cranial CT to recheck the tumor size could not be done due to lack of funds.

Discussion

Pituitary macroadenoma is not an uncommon endocrine presentation in our endocrine clinic. A lot of patients with microadenomas might be asymptomatic as compared with patients with macroadenomas who might present with pressure symptoms as highlighted above in this woman. This particular patient also presented with hyperprolactinaemia which suggest a case of macroprolactinoma. Although vision in her right eye remains poor despite the resolution of the other symptoms she presented with, we strongly believe she might have had a better outcome if she had presented earlier before the onset of pressure symptoms. She has remained relatively stable on tabs carbagoline 1mg weekly in last 1 year. A repeat cranial CT will go a long in helping us to determine the need for continuation of the dopaminergic agonist.



Panel A and B showing CT scans with features in-keeping with pituitary macroadenoma

Table showing serial pituitary function test results

	T3	T4	TSH	LH	FSH	PROLACTIN
INITIAL 01/02/2016	0.8pg/ml **Low**	0.7ng/dl **Low**	0.45µIU/ml **Normal**	1.0mIU/ml **Normal**	8.8mIU/ml **Normal**	96.0ng/ml **High**
On Carbegoline 09/06/2016	1.2ng/dl **Normal**	0.8µg/dl **Normal**	1.2µmIU/ml **Normal**	4.0mIU/ml **Normal**	2.5mIU/ml **Normal**	16ng/ml **Normal**
Repeat after first review 18/12/2016	3.88pmol/L **Normal**	10.05pmol/L **Normal**	1.010mIU/ml **Normal**	1.88mIU/ml **Normal**	5.950mIU/ml **Normal**	18ng/ml **Normal**

Conclusion

Pituitary macroadenomas (macroprolactinomas) respond well to dopamine agonists alone and early presentation increases the chances of complete cure.

References

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