



# Current Research in Psychiatry and Brain Disorders



## Case Report

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## A Severely Invasive Macro Adenoma of the Pituitary Gland Lead to Visual Failure: A Case Report

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### Abstract

A pituitary gland macroadenoma is a common disease with one type of invasion, but this case of macroadenoma has all three types of invasion which lead to visual failure in both eyes.

**Keywords:** Eye visual failure; Pituitary gland; Tumor

### Case Report

A sixteen-year-old female patient came to the neurology center at King Abdullah Medical City with total left eye visual failure and right eye distorted vision very close to blindness (light can be seen, but the fuzziness causes object cannot be determined) with a 0/20 visual acuity and Goldman perimeter of the visual field test proved a complete visual dysfunction. The patient never felt any symptoms or hormonal imbalance or menstrual issues except experiencing a chronic headache every week. Then, she lost her vision suddenly in the left eye and in a fast gradually rhythm in the right eye. One year took the patient before she came to visit to the neurology center. An MRI scan was requested for the patient which revealed a massive tumor in the pituitary gland > 10mm which excluded microadenomas. The dimensions of the tumor are (18.6 cm as width, 17.2 cm as height, and 7.5 cm as length). A time 1(T1) pulse sequence with contrast was performed which showed all three types of possible invasion:

- Suprasellar invasion, which affect the 3<sup>rd</sup> ventricle and lateral ventricles,

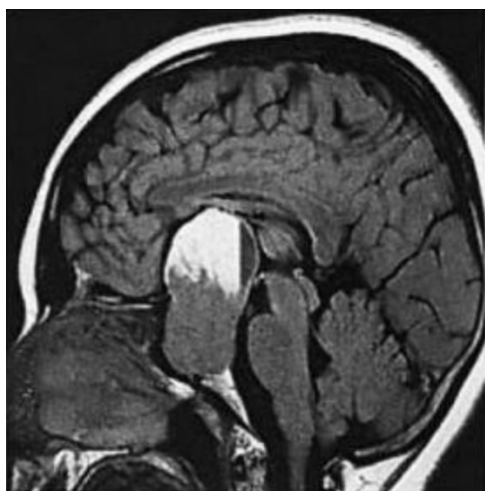
- Cavernous sinus invasion, which affect the cavernous segment of the internal carotid artery, and
- Sphenoid sinus invasion. A blood test and biopsy were requested to identify the functionality of the tumor and whether it is benign or malignant.

The blood test came normal for the hormones levels and the biopsy confirmed the case as benign macroadenoma and excluded pituitary gland carcinoma. The macroadenoma was compressing the optic chiasma and nerves causing visual failure. The medical team decided to perform an endoscopic trans-sphenoidal surgery which used 1 cm endoscope entering from the nose to cross the sphenoid bone to the pituitary gland to remove the tumor. All the judgments on the medical imaging study were confirmed during surgery. After eight-hour-long surgery, the patient woke up next day and clinical exams were performed to check her visual ability. The patient can see 20/20 for both eyes after the tumor has been removed. The severity of this case was on the left side which caused the loss of vision suddenly (Figure 1 and Figure 2).

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**Figure 1:** (A sixteen-year-old female). A brain MRI scan on the coronal section of T1 with contrast. An invasion in the third ventricle and compressed lateral ventricle, an invasion in the cavernous sinus and the cavernous segment of the left internal carotid artery and compression against the medial aspect of the parietal and temporal lobes.



**Figure 2:** (A sixteen-year-old female). A brain MRI scan on the sagittal section of T1 with contrast. The sphenoidal invasion and compression of the frontal lobe from the posterior aspect. The tumor extends from the rostrum of the corpus callosum to the sphenoid bone.

## Discussion

Chiasmal dysfunction and visual failure are associated with pituitary macroadenoma [1]. The prevalence of all types of pituitary adenomas is 22.5% in imaging studies [2]. The endoscopic trans-sphenoidal surgery intervention to remove the pituitary macroadenoma can lead to post-operative complication like cerebrospinal fluid (CSF) leakage [3].

## References

1. Warnet A, Timsit J, Chanson P, Guillausseau PJ, Zamfirescu F, et al. (1989) The effect of somatostatin analogue on chiasmal dysfunction from pituitary macroadenomas. *J Neurosurg* 71: 687-690.
2. Ezzat S, Asa SL, Couldwell WT, Barr CE, Dodge WE, et al. (2004) The prevalence of pituitary adenomas: a systematic review. *Cancer* 101: 613-619.
3. Charalampaki P, Ayyad A, Kockro RA, Perneczky A (2009) Surgical complications after endoscopic transsphenoidal pituitary surgery. *J Clin Neurosci* 16: 786-789.