

## Case Report: Pituitary Macroadenoma with Calcification

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### ABSTRACT

**Background:** sellar-suprasellar tumor calcification mostly is craniopharyngioma but rarely can be found in Pituitary Adenomas.

**Aim of the work:** This article aim to describe a case report of Pituitary Macroadenoma with calcifications.

**Results:** Clinical and radiological management were discussed.

**Conclusion:** The case demonstrated the possibility of uncommon presentation of pituitary adenoma.

**Keywords:** Calcification, pituitary Adenomas, craniopharyngioma.

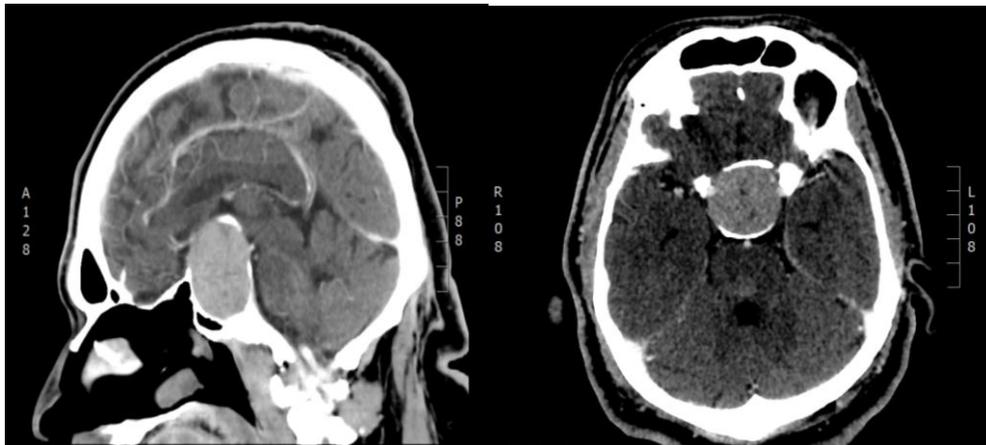
### INTRODUCTION

Sellar suprasellar lesion with calcification mostly is craniopharyngioma<sup>[1]</sup>. However, in some cases calcification can occur rarely in cases of pituitary adenomas and Rathke's cleft cysts<sup>[2,3]</sup>. Differential diagnosis preoperatively is important, and the presence or the absence and type of calcification module can be helpful for distinction between these rare pathologies<sup>[3]</sup>. The authors describe a case of calcified sellar suprasellar lesion, which was finally diagnosed as a pituitary macroadenoma. The case highlights this imaging feature as it is important to differentiate between craniopharyngioma and pituitary adenoma in the therapeutic and prognostic point of view. It is considering the varied and more aggressive behavior of craniopharyngiomas as compared to pituitary adenomas.

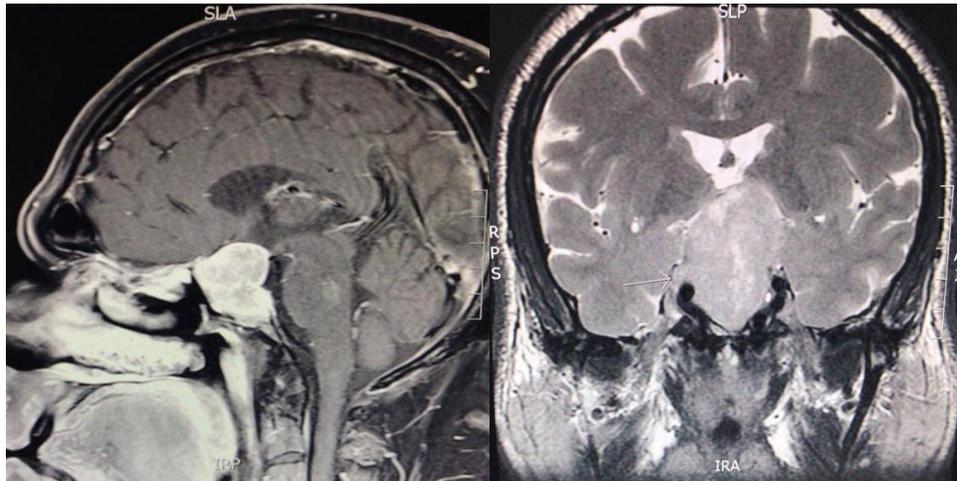
### CASE REPORT

58 years old male, married, not a smoker known case of diabetes mellitus, hypercholesterolemia and pituitary adenoma which diagnosed at age of 48 years old when he had deterioration of the vision mostly in the left eye, weight gain, impotence, erectile dysfunction.

On 2/11/2016, the patient was presented to ED complaining of deterioration of vision, weight gain, impotence and erectile dysfunction. On examination the patient was conscious, alert, oriented, pupils bilateral reactive 3mm, right visual field intact and left eye temporal hemianopia, other cranial nerves were intact, no sensory or motor deficit. Imaging shows (a calcified sellar suprasellar mass). The patient admitted for surgery.



**Figure (1):** CT of the brain sagittal and axial views, which show sellar suprasellar lesion with calcification



**Figure (2):** MRI of the brain “T1 sagittal with contrast and Coronal T2”

Trans-nasal-trans-sphenoidal endoscopic tumor debulking was done on 7/11/2017, and pathology results came as a "pituitary adenoma".

After two days of the operation patient developed visual disturbance (the patient can see only light perception and barely the hand motion he was able to count fingers) as post operation complication.

So urgent brain CT was done which showed post-operative hemorrhage in the resected tumor bed and the residual component of the tumor with compression over the optic nerve, so urgent Trans-nasal trans-sphenoidal hematoma evacuation and debulking of the residual tumor was done. CT brain was as post operation, which showed no hematoma and no mass effect. Patient discharged on 17/11/2016 and he was stable and following up in the clinic. MRI brain done during the following up which showed 2<sup>nd</sup> stage pituitary macro adenoma, so the patient readmitted at 18/5/2017 for surgery.

Trans-nasal-trans-sphenoidal endoscopic pituitary macro adenoma debulking was done at 22/5/2017. The patient post operative was stable so he discharged with following up in the clinic. "

## DISCUSSION

The most common differential diagnosis of sellar suprasellar lesions are pituitary adenoma and craniopharyngioma<sup>[2]</sup>. Presence of calcification in a sellar suprasellar mass is however almost diagnostic of a craniopharyngioma<sup>[1]</sup>.

While Calcification of the pituitary adenoma is very rare and is reported in only 0.2% to 8% of cases<sup>[3]</sup>. So the presence of calcification in the sellar suprasellar lesion mostly indicate craniopharyngioma strongly as the probable diagnosis preoperatively, an enlarged sella with

minimal calcification, favored a trans-sphenoidal approach. This approach was also chosen considering the sellar location and pituitary adenoma with calcification described in the literature<sup>[2, 3, 4]</sup>. The differentiation of lesions based on imaging and clinical features that are surgically important as more than 95% of pituitary adenoma cases can be safely and completely removed trans-sphenoidally while trans-cranial approaches form the mainstay of surgery for craniopharyngiomas<sup>[1,3]</sup>.

## CONCLUSION

This case highlights the fact that pituitary adenomas can rarely have calcification and should be distinguished and differentiate from other tumors as the prognosis and management with selection of the surgical approach differs significantly depending on the nature of the lesion.

**Ethically Approved by the board of King Fahad Specialist Hospital.**

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