# Pituitary apoplexy

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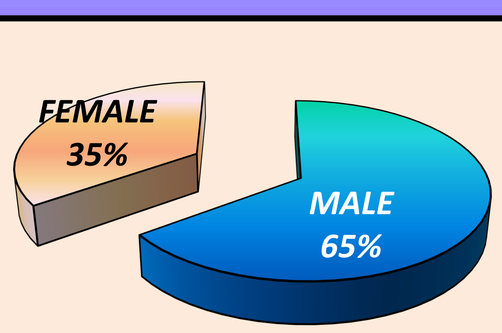
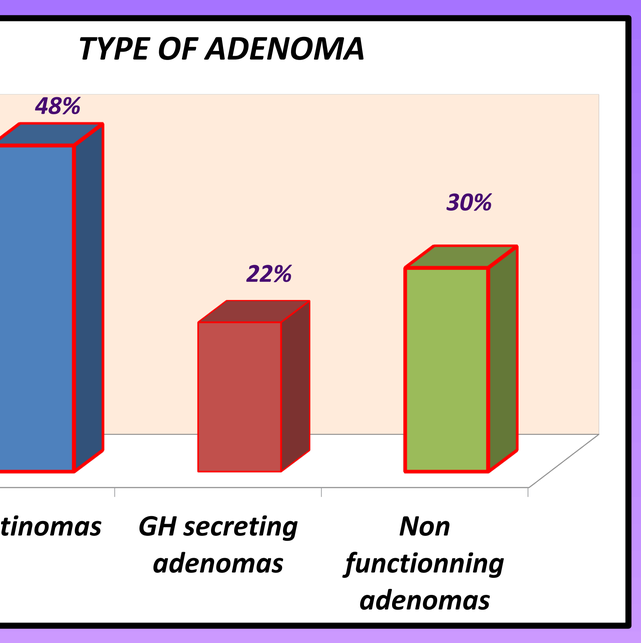
## WHAT IS PITUITARY APOPLEXY ?

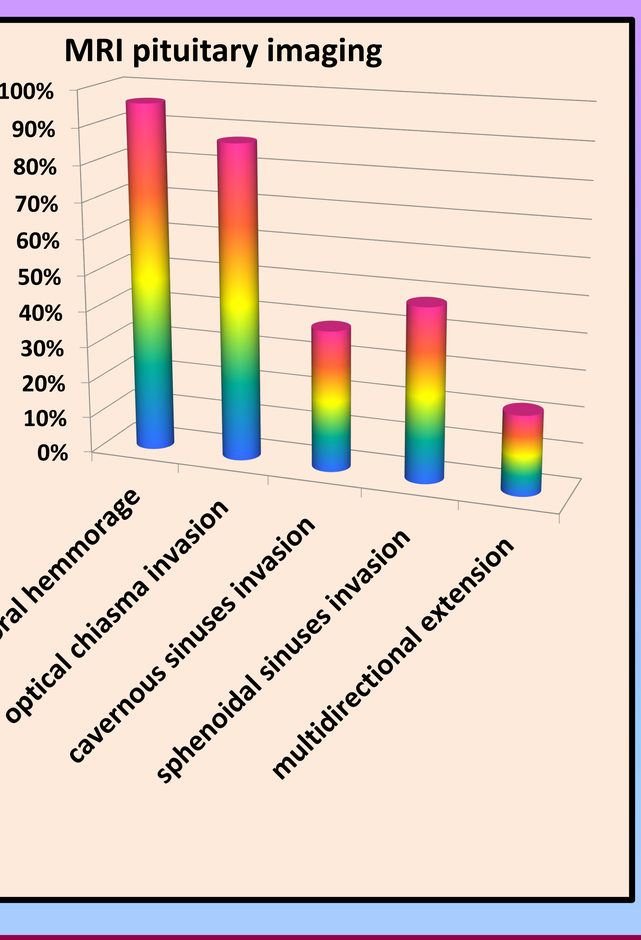
Pituitary apoplexy is a rare endocrine emergency characterized by the sudden onset of severe headaches , vomiting visual abnormalities and pituitary dysfunction secondary to an acute hemorrhage or infarction within a pituitary adenoma.

## SUBJECTS AND METHODS

We report a retrospective study from 2000 to 2014 of 23 cases with pituitary apoplexy. Their mean age was 38.7 +/- 10 years, with a male to female ratio of 2:1.




## RESULTS

Apoplexy revealed an unknown adenoma in 74%.

| Type of adenoma | Symptoms | Predisposing Factors | Pituitary imaging | Endocrine evaluation |
|---|---|---|---|---|
| | | | showed macroadenomas in all cases. | showed at least one hormone deficiency in 92%. |
| Prolactinomas 48 % | Frontal and retro-orbital Headaches 92% | Diabetes 31 % | Optical chiasma invasion in 87% | Gonadotroph deficiency in 70% |
| GH secreting adenomas 22% | Visual impairment 78% | Bromocriptine use in 22% | Cavernous sinuses invasion in 48% | corticotroph deficiency in 70% |
| Non functionning adenomas 30 % | Vomiting 43 % | Antithrombotic medication 4.3 % | Sphenoidal sinus invasion in 39% | Thyrotropic deficiency in 61% |
| | Ocular Nerve palsy (diplopia and ptosis) 40% | Pregnancy in 4.3% | Multidirectional extension in 22% | |
| | Fever, meningeal irritation signs, rhinorea and epistaxis 8% | | Areas of intratumoral hemorrhage were evident on MRI in 94%. | After the apoplexy episode: 40% of GH-secreting adenomas normalized their GH-IGF-1 levels 27% of prolactinomas normalized their prolactin levels. |

Six patients were treated with high dose glucocorticoids with complete neuro-ophtalmological recovery in 67%.

## DISCUSSION

In our study apoplexy reveals generally unknown adenomas. Male sex and functioning tumours, were major risk factors. The majority of our patients had frontal and retro-orbital headaches associated to visual impairement as symptoms. MRI pituitary imaging was the best diagnosis tool. It detects hemorraghe in the majority of the cases. All our patients with PA had a pituitary macroadenoma with important suprasellar extension, so large tumour size can be associated with a significantly increased risk of PA.
Diabetes, Bromocriptine, anti-thrombotic medication and pregnancy can be associated with risk of PA.
An event of PA lead to pituitary insufficiency at least in one hormone in the majority of our patients requiring substitution.
Our results confirm the findings of some previous studies in the literature.

## CONCLUSION

Pituitary apoplexy is a rare life-threatening clinical syndrome caused by infarction or hemorrhage within a pituitary adenoma, once diagnosed a multidisciplinary team approach is mandatory in order to improve the outcome of this condition.

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