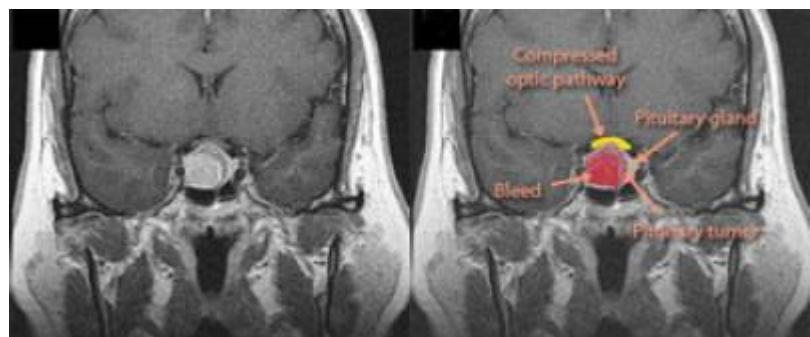


# Pituitary apoplexy treatment



- Association of non-English language preference with tumor characteristics and postoperative outcomes following pituitary neuroendocrine tumor resection:a retrospective review of 1143 cases
- Pituitary Apoplexy in a Child with Short Stature and Possible Recent SARS-CoV-2 Infection
- Pituitary apoplexy: surgical or conservative? A meta-analytical insight
- Pituitary Apoplexy Following Gonadotropin-Releasing Hormone Agonist Therapy: A Rare and Life-Threatening Complication
- Long-term pituitary function following transsphenoidal surgery for non-functional pituitary neuroendocrine tumor with apoplexy: a single-center retrospective analysis
- Septicemia following sudden pituitary apoplexy after bladder tumor surgery: a case report
- Pituitary apoplexy in the setting of severe headache and unconsciousness
- Pituitary apoplexy in a patient on antiplatelet therapy: A case report

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Pituitary apoplexy is a challenging condition due to its variable course, its diagnosis difficulty, and management, as gaps remain to determine the best approach to treat this condition <sup>1)</sup>

The pituitary function is consistently compromised, necessitating rapid administration of corticosteroids and endocrine evaluation.

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Patients with pituitary apoplexy may have a spontaneous remission of hormonal hypersecretion. If it is not an emergency, we should delay a decision to undertake surgery following apoplexy and re-evaluate hormone secretion. Hyponatremia is an acute sign of hypocortisolism in pituitary apoplexy. However, SIADH although uncommon, could appear later as a consequence of direct hypothalamic insult and requires active and individualized treatment. For this reason, closely monitoring sodium at the beginning of the episode and throughout the first week is advisable to guard against SIADH. Despite being less frequent, if pituitary apoplexy is limited to the tumor, the patient can recover pituitary function previously damaged by the undiagnosed macroadenoma <sup>2)</sup>.

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In the absence of visual deficits, lactotroph adenomas may be treated with bromocriptine.

Rapid decompression is required for: sudden constriction of visual fields, severe and/or rapid

deterioration of acuity, or neurologic deterioration due to [hydrocephalus](#). Surgery in  $\leq 7$  days of pituitary apoplexy resulted in better improvement in [ophthalmoplegia](#) (100%), [visual acuity](#) (88%) and field cuts (95%) than surgery after 7 days, based on a retrospective study of 37 patients.<sup>3)</sup>.

Decompression is usually via a transsphenoidal route (transcranial approach may be advantageous in some cases).

A systematic literature search was performed of [MedLine](#), [Embase](#), the [Cochrane Library](#), and the [Web of Science](#) for articles published between January 1992 and September 2014. Studies of the outcomes in consecutive patients that compared surgical intervention with non-surgical treatment for pituitary apoplexy were included.

Six studies met the inclusion criteria. As compared to the non-surgically treated patients, surgically treated patients had a significantly higher rate of recovery of ocular palsy and visual field (both  $P<0.05$ ). However, there was no significant difference in the recovery of visual acuity and pituitary function ( $P>0.05$ ) between the two groups.

The findings of this study suggest that surgical intervention should be advocated for pituitary apoplexy patients with visual field defects and ocular palsy<sup>4)</sup>.

## Goals of surgery

1. To decompress the following structures if under pressure: optic apparatus, [pituitary gland](#), [cavernous sinus](#), [third ventricle](#) (relieving [hydrocephalus](#))
2. Obtain tissue for pathology
3. Complete removal of the tumor is usually not necessary
4. For hydrocephalus: [ventricular drainage](#) is generally required.

## References

<sup>1)</sup>

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<sup>2)</sup>

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<sup>3)</sup>

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<sup>4)</sup>

Tu M, Lu Q, Zhu P, Zheng W. Surgical versus non-surgical treatment for pituitary apoplexy: A systematic review and meta-analysis. J Neurol Sci. 2016 Nov 15;370:258-262. doi: 10.1016/j.jns.2016.09.047. Review. PubMed PMID: 27772771.

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