# When the Pressure Breaks: Pituitary Apoplexy in the Setting of Pre-Eclampsia

Anthony Fraga, MD, Fatine Karkri, MD, Pervez Sultan, MD
Stanford Department of Anesthesiology, Perioperative and Pain Medicine, Stanford, CA. USA.

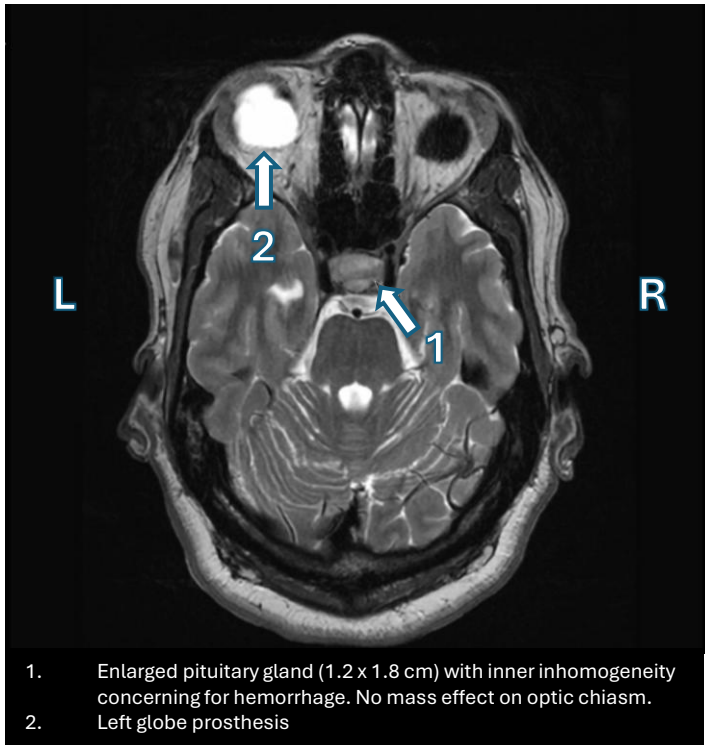
## Background

- Pituitary apoplexy is rare but potentially life-threatening in pregnancy (≈1:10,000 term pregnancies)[1]
- Acute hemorrhage of the pituitary can cause sudden severe headache, visual symptoms, and pituitary hormone dysfunction
- Can mimic/worsen concern for severe pre-eclampsia → requires prompt recognition
- Optimal care is multidisciplinary: Obstetrics, Neurosurgery, Endocrinology, Ophthalmology, Anesthesia

Stanford MEDICINE
School of Medicine

# Clinical Timeline

- 40-year-old G2P1 at 30 weeks with chronic hypertension; non-adherent to labetalol 100 mg BID x 1 week
- Presented with elevated BPs (162/104, 159/114, 155/111)
- Diagnosed superimposed pre-eclampsia without severe features (UPC 0.42); fetal ultrasound unremarkable
- Developed sudden intractable headache, photophobia, worsening visual blurriness
- High-stakes vision history: congenital blindness left eye; right eye only functional vision




1. Enlarged pituitary gland (1.2 x 1.8 cm) with inner inhomogeneity concerning for hemorrhage. No mass effect on optic chiasm.
2. Left globe prosthesis

## Medical Management

- Stress-dose corticosteroids and levothyroxine replacement
- Conservative approach is standard for pituitary apoplexy in pregnancy[2]

→

## Surgical Intervention

- Non-emergent transsphenoidal hematoma evacuation performed with continuous fetal monitoring
- Obstetric team on standby for fetal concerns

→

## Outcomes

- Post-op: Improved headaches and vision
- Stable pituitary function on hydrocortisone replacement
- Cesarean delivery at 36+5 weeks for PPROM (uneventful)

## Key Takeaways:

- Severe headache + visual changes should prompt consideration of pituitary apoplexy, even in the setting of suspected/worsening pre-eclampsia.
- Frequent reassessment needed as clinical deterioration can occur rapidly with conservative management (imaging + glucocorticoids)
- Surgical evacuation may be considered for vision preservation despite pregnancy
- Coordinated multidisciplinary care optimizes maternal-fetal outcomes

**References:**
1. Rev Bras Ginecol Obstet. 2023 May;45(5):273-280.
2. J Clin Med. 2024 Apr 24;13(9):2508.

Stanford MEDICINE
School of Medicine