Occipital Nerve Block and Opioid Weaning for Refractory Post-Traumatic Headache in a Breastfeeding Mother: A Case Report

Bilaal Hassan, MD; Robert J Balch, DO
Texas Rehabilitation Hospital of Fort Worth, PM&R Residency



Background and Methods

Why It Matters

Opioid-induced hyperalgesia (OIH) can paradoxically worsen pain and may manifest as or aggravate post-traumatic headache (PTH)

Lactation adds a therapeutic constraint because opioids, butalbital, and gabapentinoids are undesirable

Study design

Single-patient retrospective case report from an inpatient rehabilitation (IPR) admission.

Medications were used for accepted analgesic/headache indications; no investigational drugs or off-label indications central to the case were reported

Patient and Setting

36-year-old lactating woman with moderate TBI after fall:
- Multifocal intracranial hemorrhage
- Nondisplaced parietal fracture
- Severe, throbbing, refractory PTH

Acute care: IV hydromorphone
IPR: oral hydromorphone + butalbital/acetaminophen/caffeine

During admission, she pumped and discarded breast milk with the explicit goal of eliminating opioids

Headache escalated despite opioid therapy, raising concern for OIH and medication-overuse physiology

Clinical Goal

Eliminate opioids to permit planned resumption of breastfeeding while controlling refractory headache

Clinical Course

1 WEAN

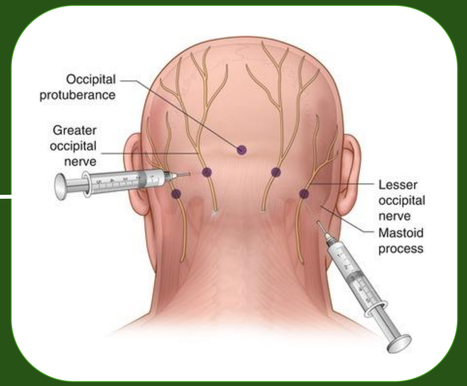
Systematic opioid + butalbital weaning

2 MULTIMODAL PAIN REGIMEN

Prochlorperazine + diphenhydramine
Amitriptyline 25 mg
Pregabalin 25 mg TID

3 GONB

Bilateral greater occipital nerve block
1% lidocaine + methylprednisolone



4 OUTCOME

Significant reported headache relief

5 DISCHARGE

Off opioids + butalbital
Discharged next day on low-dose amitriptyline

Take-Home Message

For refractory PTH when systemic analgesic options are limited, opioid weaning + MMPR + GONB can provide an opioid-sparing pathway

Discussion

This case illustrates refractory PTH in the setting of opioid exposure, with improvement after opioid cessation, multimodal therapy, and GONB

Why GONB?

- Peripheral nerve blocks offer minimal systemic exposure and significant quick relief
- This may be particularly attractive when medication choices are constrained by lactation

Opioid-Sparing Strategy

- Antidopaminergic-based acute headache regimens are guideline-endorsed
- In this case, systematic opioid/butalbital weaning was paired with multimodal treatment

Lactation Considerations

- Breast milk was pumped and discarded while opioids were being eliminated
- The goal was to prioritize lactation-compatible options once opioids were eliminated

References

Grace PM, Maier SF, Watkins LR. Opioid-induced central immune signaling: implications for opioid analgesia. *Headache*. 2015;55(4):475-489.

File C, Fang X, Ahmad R, et al. Efficacy of nerve blocks for managing refractory posttraumatic headaches. *Pain Physician*. 2025;28(2) PMID 40168565.

Dalal PG, Bosak J, Berlin C. Safety of the breast-feeding infant after maternal anesthesia. *Paediatr Anaesth*. 2014;24(4):359-371. doi:10.1111/pan.12331

Friedman BW, Irizarry E, Cain D, et al. Randomized study of metoclopramide plus diphenhydramine for acute posttraumatic headache. *Neurology*. 2021;96(18):e2323-e2331.

Robblee J, Minen MT, Friedman BW, Cortel-LeBlanc MA, Cortel-LeBlanc A, Orr SL. 2025 guideline update to acute treatment of migraine for adults in the emergency department: the American Headache Society evidence assessment of parenteral pharmacotherapies. *Headache*. 2026;66(1):53-76. doi:10.1111/head.70016