

# SPHENOPALATINE GANGLION BLOCK FOR POST-DURAL PUNCTURE HEADACHE IN HIV POSITIVE PATIENT WITH REACTIVE RPR

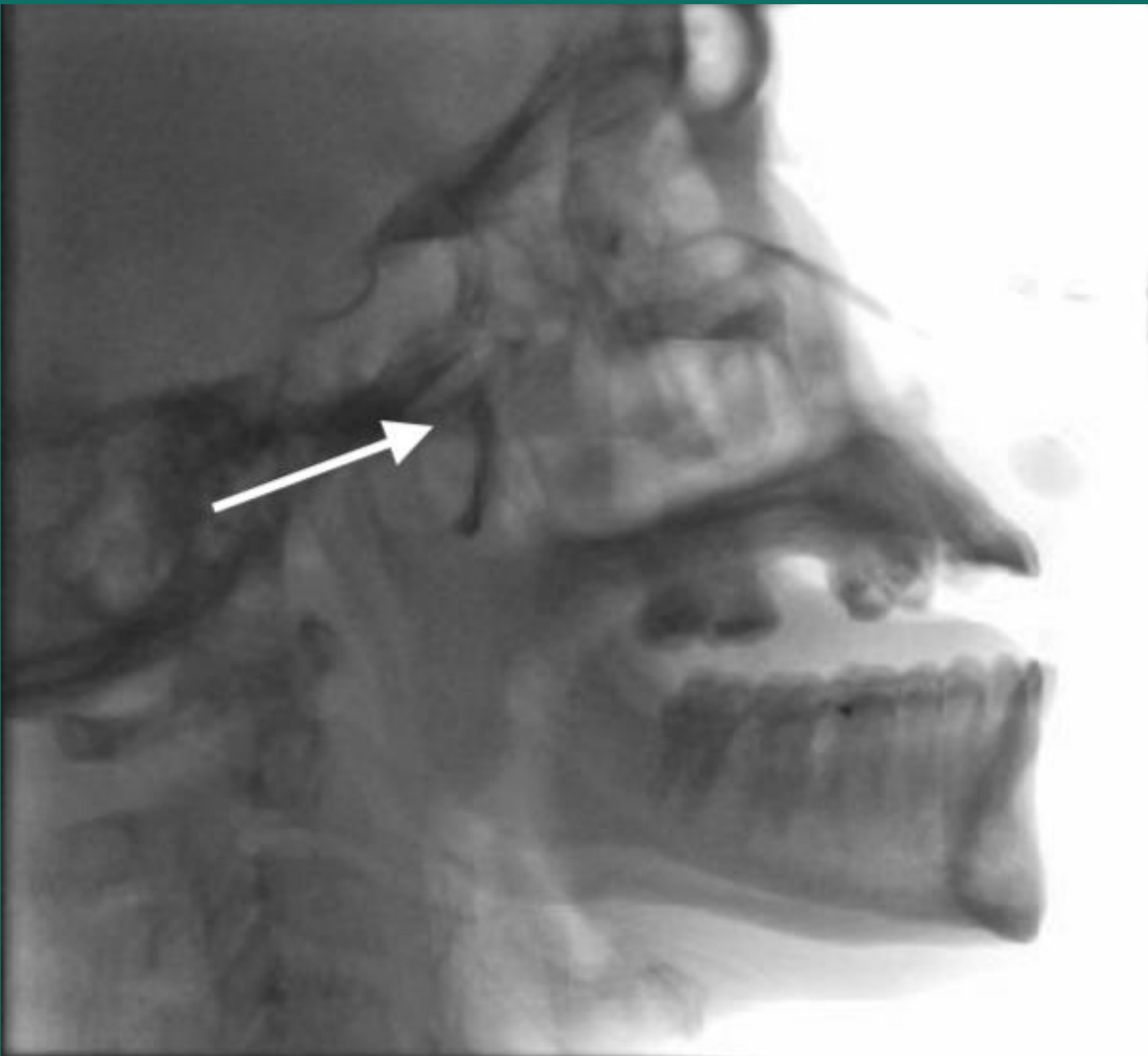
James Carey MD, Rozalin Thapa DO, Amit Singh DO, Audrey Jensen MD  
Medical College of Wisconsin, Milwaukee WI

## Introduction

- Post-dural puncture headache (PDPH) is a recognized complication following spinal anesthesia
- Reported rates from 1.5-11.2%, vary based on several factors including age, history of headaches, and type and size of needle used (1,2).
- Natural course of PDPH is resolution within 2 weeks, but in cases of severe symptomatology, procedures are available to alleviate symptoms, which include epidural blood patch (EBP) and sphenopalatine ganglion block (SPGB).

## Case Report

- 32-year-old male presented for anal condyloma removal under spinal anesthesia.
- PMH significant for HIV intermittently on Biktarvy and syphilis previously treated with doxycycline due to penicillin allergy (initial RPR 1:128, recently fluctuating between 1:1 to 1:4).
- 25-guage pencil-tip needle was initially used but placement unsuccessful due to robust ligament. 22-guage pencil-tip needle used with successful subarachnoid placement on first pass. The rest of the perioperative course was uneventful, patient discharged same day.
- Patient contacted post-operative day 1 (POD#1) for follow-up, no complaints besides mild back pain at puncture site.
- POD#2 developed severe headache leading to presentation to the Emergency Department. Workup unremarkable and symptoms improved following IVF and medications, and he discharged home.
- Despite conservative measures, including hydration, caffeine consumption, and scheduled acetaminophen, severe headaches persisted through POD#6, and after being offered procedures including EBP and SPGB, he elected to present for SPGB.



Transnasal **SPGB** can be used for **PDPH management** and is available when **EBP** is **deferred** or carries additional risk.

## Outcome

- POD#7 SPGB was performed using transnasal catheter.
- 2mL of 4% lidocaine with contrast media given through each naris under fluoroscopy to verify appropriate placement (figure).
- The patient experienced conjunctival injection, tearing, facial warmth and flushing, and had almost immediate relief of his symptoms.
- No recurrence of PDPH symptoms with follow-up on POD#10.

## Discussion

- Both HIV and syphilis seem to infect neuroaxis early in course
- Neuraxial procedures including EBP in patients with HIV have been established as safe without increasing risk of morbidity (3). Little information exists on outcomes of autologous EBP with syphilis. Patients with HIV and syphilis coinfection have elevated rates of syphilis recurrence and reinfection (4).
- Alternative epidural injectates include crystalloid, dextran, and fibrin glue, though evidence for efficacy and safety is lacking (2).
- Allogeneic EBP has also been described in case reports (5).
- In cases of patient refusal or if epidural access is contraindicated, greater occipital nerve blocks and SPGB have been utilized (2).

## References

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