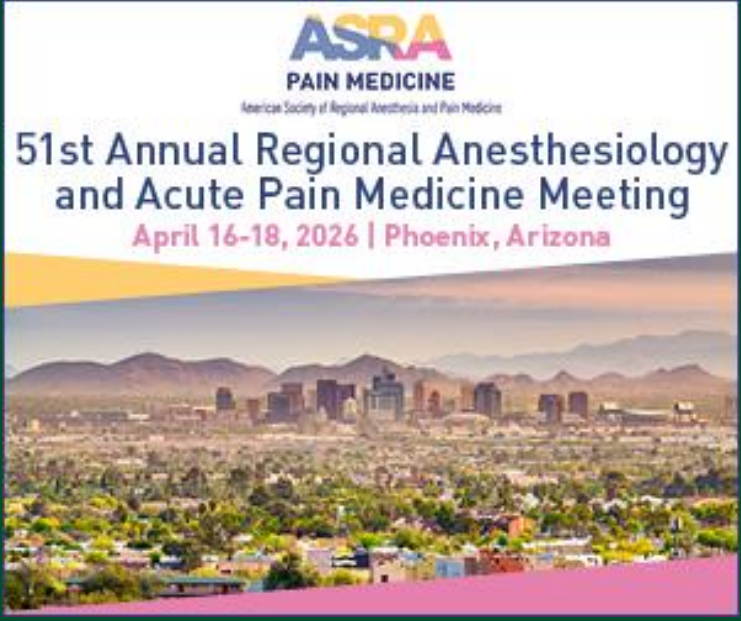




Introduction

Postdural puncture headache (PDPH) is a well-recognized complication of diagnostic lumbar puncture and is typically managed with conservative therapy followed by epidural blood patch (EBP) when symptoms are refractory. Limited data exist regarding the safety of EBP patients with demyelinating disease, such as multiple sclerosis (MS), in whom neuraxial procedures raise theoretical concerns for neurologic worsening. We report a unique case of EBP for severe PDPH in a patient subsequently diagnosed with MS.

Materials and Methods

This is a single-patient case report from our tertiary-care hospital. EBP was performed at L4-L5 interspace with standard monitoring and sterile technique. As the case report is devoid of patient-identifiable information, it is exempt from IRB review requirements. However, written informed consent was obtained from the patient for publication and presentation.

References

1. Çavuş, Z., & Coskun, N. (2019). Postdural puncture headache in multiple sclerosis; what shall we do now? *Journal of Anesthesiology and Reanimation Specialists' Society*.
2. Koeva, V ., Bar-Or, A., Gendron, D., et al. (2013). Epidural blood patch in a patient with multiple sclerosis: Is it safe? *Canadian Journal of Anesthesia / Journal Canadien d'Anesthésie*, 60(4), 479–483.

Case Report

A 40-year-old woman developed severe positional headache after a fluoroscopy-guided lumbar puncture for evaluation of suspected MS. A fluoroscopy-guided lumbar puncture at L2–L3 using a 22-gauge spinal needle yielded 14mL of clear CSF with an opening pressure of 17 cm H O. Three days later, she developed a classic positional PDPH. Initial management on admission included scheduled acetaminophen, ketorolac, cyclobenzaprine, intravenous normal saline, butalbital/acetaminophen/caffeine, and as-needed diphenhydramine/prochlorperazine. After over 24 hours of failed conservative therapy, an EBP was offered. The patient was informed of the risk of potentially increasing neurologic symptoms. After discussing risks, benefits, and alternatives, the patient wished to proceed with an EBP.

An EBP was performed at the L4–L5 interspace in the sitting position under standard monitoring, using the loss-of-stance technique and sterile preparation. 15mL of autologous blood, sterilely drawn from the left hand were injected into the epidural space without resistance. Careful attention was paid to inject slower than normal fashion to limit peri axonal pressure changes in the epidural space.

Results

The patient remained hemodynamically stable with no acute deterioration of demyelinating symptoms and near-immediate headache relief. She maintained symptom resolution at bedside follow-up and multiple telephone check-ins after discharge, at which time CSF oligoclonal bands confirmed MS.

Discussion

In patients with suspected or confirmed MS, neuraxial procedures and EBP raise concerns for exacerbating demyelinating lesions or causing new neurologic injury, and available data are sparse. In our case, an EBP using slow injection yielded rapid, sustained PDPH relief without apparent neurologic worsening. Our experience supports cautious consideration of EBP for debilitating PDPH in similar patients, with thorough counseling of risks, benefits, and alternatives and close clinical follow-up.