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Management and resolution of post-dural puncture headache with use of metoclopramide in an obstetric patient

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INTRO

- Post-dural puncture headache (PDPH) is a common complication following epidural anesthesia.
- Symptoms include headaches that worsen when upright and improve when lying down.
- PDPH can lead to patient discomfort, extended hospital stays, and increased healthcare burden.
- Effective management, particularly in obstetric patients with recurrence, is critical to improve outcomes.

RESULTS/CASE REPORT

- **Patient:** 38-year-old G2P1 woman, BMI 50, gestational hypertension, history of L4-5 discectomy.
- **Procedure:** Epidural for labor analgesia, complicated by an inadvertent dural puncture.
- **Initial Treatment:** Epidural blood patch (EBP) performed on postoperative day 2 provided relief.
- **Recurrence:** Headache returned on postoperative day 4 with associated nausea. 10 mg intravenous metoclopramide administered, resulting in complete resolution of symptoms.

- The resolution of PDPH with IV metoclopramide in this case suggests a novel treatment avenue.
- **Future Research:** Further studies are warranted to explore metoclopramide's utility in managing PDPH, particularly in patients unresponsive to conventional therapies like the epidural blood patch.

DISCUSSION

- **PDPH Incidence:**
 - Occurs in up to **85%** of patients following accidental dural puncture with a Tuohy needle (1).
- **First-line treatment:** Conservative (bed rest, hydration, caffeine).
- **Gold-standard treatment:** Epidural blood patch (EBP), effective in up to **90%** of patients, though recurrence rates reach up to **30%** (2).
- **Novel Treatment Approach:**
 - **Metoclopramide:** Traditionally used as an antiemetic; central dopamine receptor effects may explain symptom relief in PDPH.
 - Case report highlights its potential efficacy in treating PDPH, though further research is needed to confirm its role and mechanism of action in this context.

REFERENCES

1. **Costigan SN, Sprigge JS.** Dural puncture: the patients' perspective. Acta Anaesthesiol Scand. 1996;40(6):710-4.
2. **Banks S, Paech M, Gurrin L.** Audit of epidural blood patch in obstetric patients. Int J Obstet Anesth. 2001;10(3):172-6.