

Management of Neuraxial Anesthesia in a Patient With Shingles: Dermatologic Contraindications and Considerations

Warren L. Luo, BS¹; Meredith Coppinger, MD²; Omar Shairzay, MD²

1. Georgetown University School of Medicine

2. Department of Anesthesiology, Medstar Georgetown University Hospital

Learning Objective: Understand timing considerations and safety protocols for neuraxial anesthesia in obstetric patients following resolution of herpes zoster dermatologic infections.

Introduction

- **Neuraxial anesthesia** is the **gold standard** for labor analgesia and cesarean delivery, offering **superior pain control** with **minimal systemic effects** compared to general anesthesia.
- **Active dermatologic infections** like **herpes zoster** present **significant safety concerns** due to risks of **viral inoculation** into the neuraxis and **secondary bacterial infections** at puncture sites.
- Current guidelines classify **infection at the intended puncture site** as an **absolute contraindication**, yet **no high-quality evidence** defines the **safe interval** after rash resolution for performing neuraxial techniques.

Case Presentation

- A **37-year-old G5P1122** woman at **38 weeks 5 days gestation** presented in early labor with a history of **gestational hypertension** on *aspirin*, **prediabetes**, and **sinus tachycardia** on *metoprolol*.
- The patient had experienced **shingles involving the lower left back and labia two months prior**, which was **successfully treated** with *valacyclovir* with **complete resolution** and **no residual skin lesions**.
- **Epidural placement** was performed at **L3-4** using **strict aseptic technique** with **2% chlorhexidine prep**, achieving **successful catheter placement** at **6 cm depth** with loss of resistance to air.
- The patient received standard epidural medications including lidocaine test dose, bupivacaine, and continuous infusion with fentanyl, requiring minimal hemodynamic support with phenylephrine and ephedrine.

Clinical Outcomes

- The epidural provided **effective labor analgesia without any dermatologic complications, neurologic sequelae, or infectious adverse events** throughout the perioperative period.
- Post-procedure monitoring showed **stable vital signs** with expected mild tachycardia and blood pressure elevation, maintaining **adequate pain control** with a numeric score of 0.

Discussion Points

- **Herpes zoster** results from *varicella-zoster virus* reactivation in **dorsal root ganglia**, presenting as **painful dermatomal vesicular eruptions** that may lead to **postherpetic neuralgia**.
- **Theoretical risks** of neuraxial procedures through recent zoster sites include **viral meningitis, encephalitis, and epidural abscess formation**, though **actual incidence remains poorly documented**.
- This case demonstrates **safe epidural anesthesia two months post-shingles resolution**, suggesting **adequate healing time** and **absence of active lesions** may **sufficiently mitigate infection risks**.
- The **risk-benefit analysis** must weigh neuraxial anesthesia's **proven benefits** against **theoretical infection risks**, particularly in obstetric patients where **general anesthesia carries significant maternal risks**.

Clinical Implications

- **Thorough pre-procedural skin assessment** combined with **strict aseptic technique**, including **chlorhexidine preparation**, represents **current best practice** for infection prevention.
- Other dermatologic conditions requiring **careful consideration** include **active herpes simplex, cellulitis, burns, and psoriasis plaques** at potential puncture sites.
- This case provides **valuable clinical evidence** supporting the **safety of neuraxial techniques** after **complete resolution** of herpes zoster, potentially **expanding analgesic options** for affected patients.

Conclusion

- **Neuraxial anesthesia can be safely performed** in patients with **resolved herpes zoster** when **adequate time has elapsed** since lesion healing and **no active skin infection** is present.
- **Individualized risk assessment, meticulous skin examination, and appropriate timing considerations** are **essential** when planning neuraxial procedures in patients with **recent dermatologic infections**.

References

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