Anaesthetic Management of a Parturient with Acute Herpes Zoster Reactivation

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INTRODUCTION

Herpes zoster (HZ), commonly known as shingles, results from reactivation of the varicella zoster virus (VZV), which lies dormant in the dorsal root ganglia following primary infection. It presents with a painful vesicular rash in a dermatomal distribution, predominantly affecting the elderly and immunocompromised. **HZ occurs in approximately 1 in 20,000 pregnancies** [1]. Very few case reports exist describing the anaesthetic management of parturients with active HZ.

CASE REPORT

BACKGROUND

- **34-year-old** woman, **40+0** weeks gestation
- **G2P1** - previous instrumental vaginal delivery under epidural top-up.
- **Past medical history:** hypothyroidism - thyroid function normal range
- **Drug history**: levothyroxine. No known drug allergies.

PRESENTATION

- Presented to the labour ward following spontaneous rupture of membranes (SROM) more than 24 hours prior.
- **Preceding illness:** Six days prior to admission to labour ward, she had presented to the Emergency Department with a 5-day history of a **painful vesicular rash across her torso and back**.
- Herpes zoster was confirmed on **clinical examination and viral PCR skin swab**. Oral aciclovir was commenced. The active lesions were present on her back at the time of labour ward admission.

MANAGEMENT

- Induction of labour with a prostin pessary.
- **intravenous benzylpenicillin** as per local prophylaxis protocol for prolonged SROM.
- **Epidural analgesia** requested**:** Insertion at **L4/L5 was uncomplicated**, with the site chosen to actively avoid HZ lesions. A test dose of
- 15 ml of 0.1% bupivacaine with fentanyl 2 mcg/ml was administered, then commenced was commenced on PCEA (10 ml bolus, 20-minute lockout).

COURSE

- A transient high block to T2 developed after two PCEA boluses (total 35 ml within 1 hour of siting). She remained **haemodynamically stable** throughout.
- PCEA was withheld for 2 hours, then safely resumed.
- She proceeded to an **uncomplicated spontaneous vaginal delivery** several hours later.

FIGURE

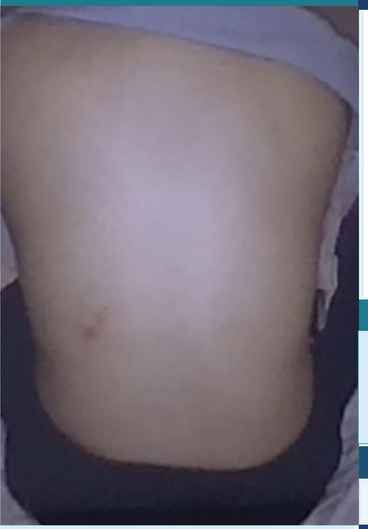

Figure 1. Dermatomal vesicular rash consistent with herpes zoster reactivation in a 34-year-old parturient at 40+0 weeks gestation. Active lesions across the torso and back.

DISCUSSION

HZ in pregnancy is rare and confers no significant fetal risk, unlike primary VZV (chickenpox). Neuraxial anaesthesia has been described for acute HZ pain management and may reduce post-herpetic neuralgia [2].

Three key considerations informed the anaesthetic plan:

1. Risk of CNS infection via VZV inoculation: Needle passage through active lesions risks introducing VZV into the epidural or intrathecal space. Careful site selection is essential; in this case, lesions were on the upper torso and back but distant from L4/L5.

2. Superadded bacterial infection: Excoriated or secondarily infected skin lesions carry a risk of bacterial CNS seeding. The lesions were inspected and found to be without signs of bacterial superinfection at the insertion site.

3. Infection control: HZ can cause primary varicella in non-immune contacts - particularly hazardous in a maternity environment. The patient was isolated in a side room, lesions were covered, and enhanced contact precautions were maintained throughout.

Written consent obtained for case report publication.

INFECTION CONTROL MEASURES IMPLEMENTED

Side room isolation Patient isolated throughout labour admission	**Lesions covered** Active HZ lesions dressed and covered at all times	**Contact precautions** Enhanced PPE for all attending staff	**IV antibiotics** Antibiotics for prolonged SROM prophylaxis

REFERENCES

[1] Singal A, Schwartz RA, Bhate C. Herpes zoster infection in pregnancy: features and consequences. *Arch Dermatol Res.* 2024;316(4):107.
[2] Young HJ. Herpes Zoster and Postherpetic Neuralgia: Practical Consideration for Prevention and Treatment. *Korean J Pain.* 2015;28(3):177–184.

KEY LEARNING POINTS

1. **Neuraxial anaesthesia is feasible** in parturients with active HZ
2. **Careful site selection** is mandatory — avoid VZV and bacterially infected skin lesions
3. **Infection control** is critical in maternity settings where non-immune contacts are at risk of VZV
4. **MDT collaboration** between anaesthetics, obstetrics, midwifery and infection control is essential

CONCLUSION

This case supports the use of **epidural analgesia in a parturient with active herpes zoster**, provided the insertion site is free of active lesions and robust infection control is maintained.