

Herpes Zoster Reactivation Following Epidural Steroid Injections: A Comprehensive Chart Review

Laura Furtado-Pessoa-de-Mendonca, M.D.¹, Johanna Mosquera-Moscoso, M.D.¹, Sebastian Encalada, M.D.¹, Alejandro Hallo-Carrasco, M.D.¹, Scott C. Palmer, M.D.¹, Christine Hunt D.O.¹

¹ Department of Pain Medicine, Mayo Clinic, Jacksonville, FL

INTRODUCTION

- Herpes Zoster (HZ) is a viral infection caused by the reactivation of the Varicella zoster virus within a nerve root.
- Patients undergoing procedures involving corticosteroid may be at increased risk of HZ reactivation
- We aimed to evaluate the prevalence of herpes zoster reactivation within 31 days after an epidural steroid injection at Mayo Clinic sites.

METHODOLOGY

- We conducted a retrospective chart review of patients submitted to ESI from January 1st, 2000, to February 25th, 2023.
- Patient demographic information, comorbidities, medications, procedure details, HZ vaccination status, evidence of immunosuppressive status, and HZ lesion description were evaluated.
- A qualitative statistical analysis was performed using Excel.
- The study adhered to all ethical guidelines (IRB#23-001438).

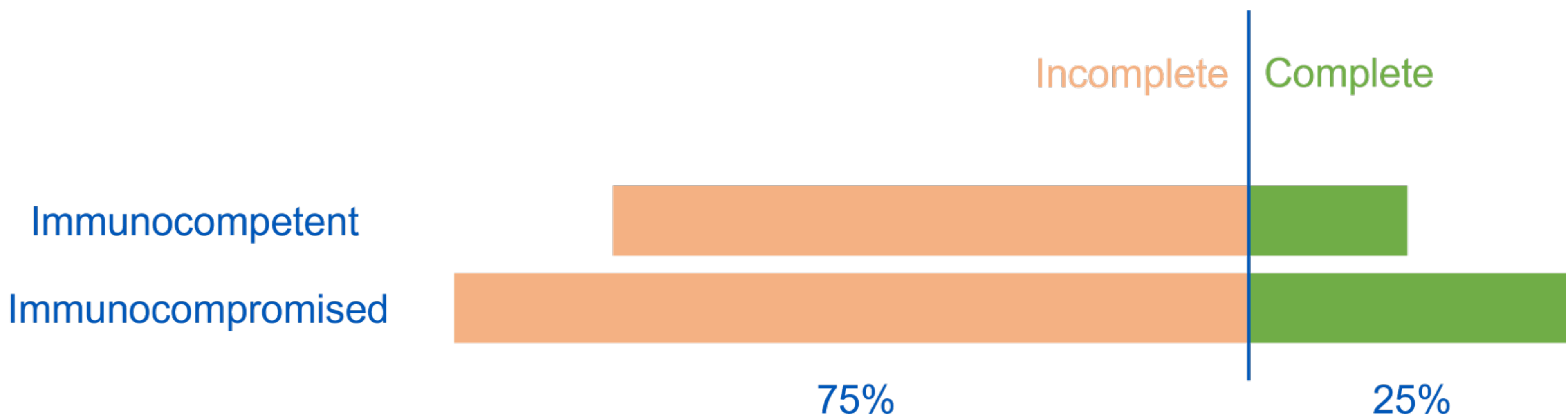
RESULTS

- A total of 35,767 epidural injections were performed at Mayo Enterprise.
- 24 individuals (0.067%) met our inclusion criteria (Table 1), and the mean age was 67.62 years old.
- The injections' approach was interlaminar (45.84%) and transforaminal (54.16%).
- The lumbar region was the most frequent target level (66.67%).
- The most frequent preparation was dexamethasone 10 mg (54.17%).
- The thoracic region was the most affected site (29.17%).
- Timeframe until infection ranged from 4 to 31 days, with a mean of 15.83 days.
- 25% of patients manifested HZ on a distant dermatome to the infection.
- 14 individuals (58.33%) had an identified immunocompromised status, and 18 patients (75%) had an incomplete vaccination status at the time of infection (Figure 1).

TABLE 1: Demographic information

	Number	Percentage
Gender		
Female	14	58%
Male	10	42%
Race		
White-Caucasian	24	100%
Ethnicity		
Not Hispanic or Latino	24	100%

FIGURE 1: Correlation between vaccination status and immune system health



DISCUSSION

- Our findings align with current epidemiologic trends in HZ, particularly in terms of associated risk factors.
- The mechanism behind reactivation after steroid injections is not fully clear.
- Local steroid injections may have systemic effects.
- Despite having a low overall rate of HZ outbreak after an ESI, our findings highlight the relevance of vaccination, especially if considering the potential burdens related to the infection.
- Precautions such as antiviral prevention and prompt treatment in high-risk groups receiving epidural steroids should be considered.
- A causal relationship cannot be established due to the retrospective nature of our review.

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