

Primary Varicella Infection in a Young Adult from India

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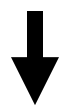
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INTRODUCTION

- Varicella zoster virus (VZV) is a highly contagious herpesvirus
- Classic presentation is an exanthematous vesicular eruption accompanied by systemic symptoms (e.g., fever)
- In childhood, VZV often follows a benign course
- Primary infection in adults is associated with more severe symptoms and higher risk of complications

EPIDEMIOLOGY OF VZV

Canada: universal VZV immunization program



Decline in primary infection, hospitalization, and mortality across all age groups

Adults born outside Canada remain susceptible to infection

- Variations in VZV vaccination programs
- Primary infection occurs later in life in tropical countries

~15-30% of young adults from tropical countries lack varicella antibodies (compared to <5% in temperate countries)

Migrants and refugees represent an at-risk cohort for primary varicella infection due to lack of immunity from vaccination or natural infection

We present a case of a 30-year-old healthy male originally from India, who presented with vesicular rash and fever after traveling to India to VFR.

CASE PRESENTATION

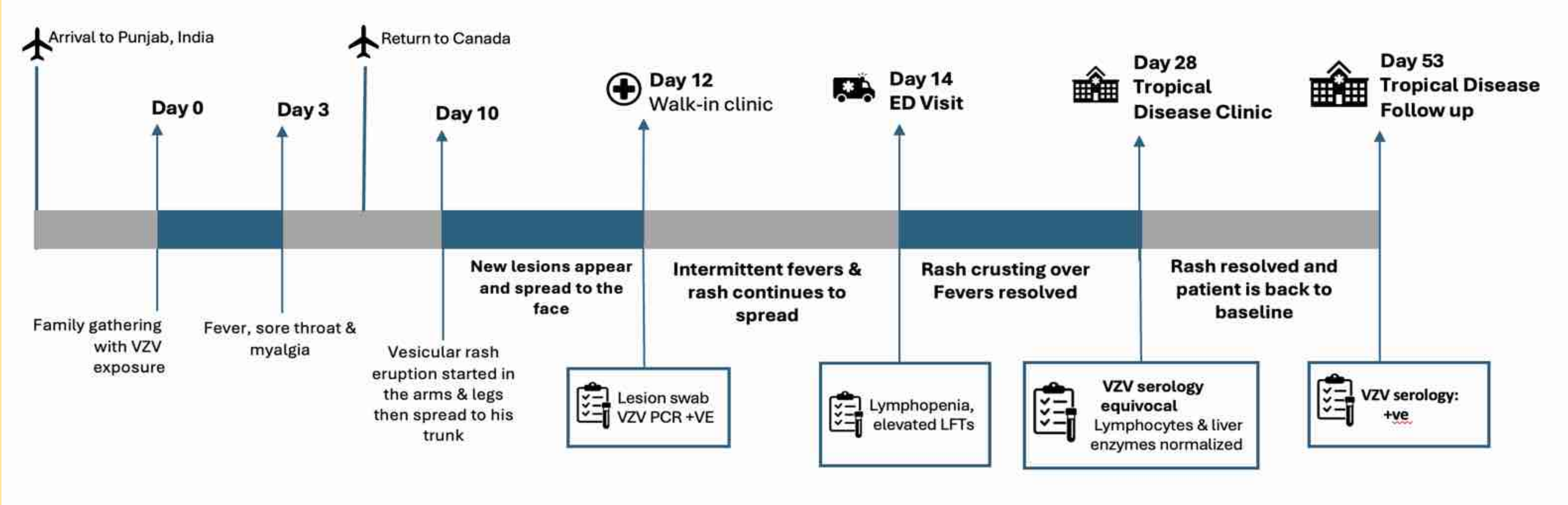


Figure 1. Timeline depicting the onset and progression of symptoms and events leading to diagnosis and resolution.



Figure 2. (A)—Vesicular rash on face of patient on Day 14. (B)—Facial rash on day 20 (C)—Rash on the trunk on day 11. (D)—Progression of the rash/ crusting of the lesions on Day 21

LEARNING POINTS AND CONCLUSIONS

Epidemiology

- Many countries do not have universal VZV vaccination programs → variable vaccination rates
- In tropical climates, primary varicella tends to occur at older ages
- Adults have higher rates of severe disease, complications, hospitalization, and death

Clinical Features & Diagnosis

- Fever and rash in immigrants and refugees should prompt consideration of primary varicella
- Classic teaching is erythematous papules → vesicles with red halos → crust over and heal
- Darker skin tones may have less pronounced erythema and/or instead appear violaceous
- Increased diversity of clinical images in medical education is key to improve diagnostic skills

Prevention

Canadian guidelines for immigrant and refugee health recommend age-based approach to VZV prevention:⁵

“Vaccinate all immigrant children < 13 years of age with varicella vaccine without prior serologic testing.

Screen all immigrants and refugees from tropical countries ≥ 13 years of age for serum varicella antibodies and vaccinate those found to be susceptible.”

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