

Adult-Onset *Mycoplasma pneumoniae*-induced rash and mucositis (MIRM) with Esophageal Involvement

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Background

- Immune-mediated mucocutaneous disorders are triggered by a variety of infections and encompassed under the umbrella term, reactive infectious mucocutaneous eruption (RIME).
- Mycoplasma pneumoniae*-induced rash and mucositis (MIRM), a sub-type of RIME, is a mucocutaneous condition typically seen in pediatric patients, mean age 12.^{1,2}
- Characterized by prominent mucositis and limited skin involvement.
- Occurs in approximately 7% of children with *M pneumoniae*.³
- Pulmonary symptoms often proceed cutaneous findings by a mean of 8 day.
- The pathophysiology of MIRM is multifactorial, involving both direct invasion of epithelial cells by *M pneumoniae* and immune-mediated damage through cytokine release and immune complex formation.⁴



Fig. 1:
Oral lesions demonstrating prominent mucositis with crusted erosions and ulcerations along the lips and buccal mucosa, with erythematous borders.

Clinical Findings



Figure 2:
(A) Lesions on the dorsal hand. Erythematous targetoid papules scattered across the dorsal hand and fingers, consistent with lesions associated with MIRM. (B). Lesions on the palmar surface. Well-demarcated erythematous targetoid papules with dusky centers involving the palm and digits, consistent with lesions associated with MIRM.

Histological Findings

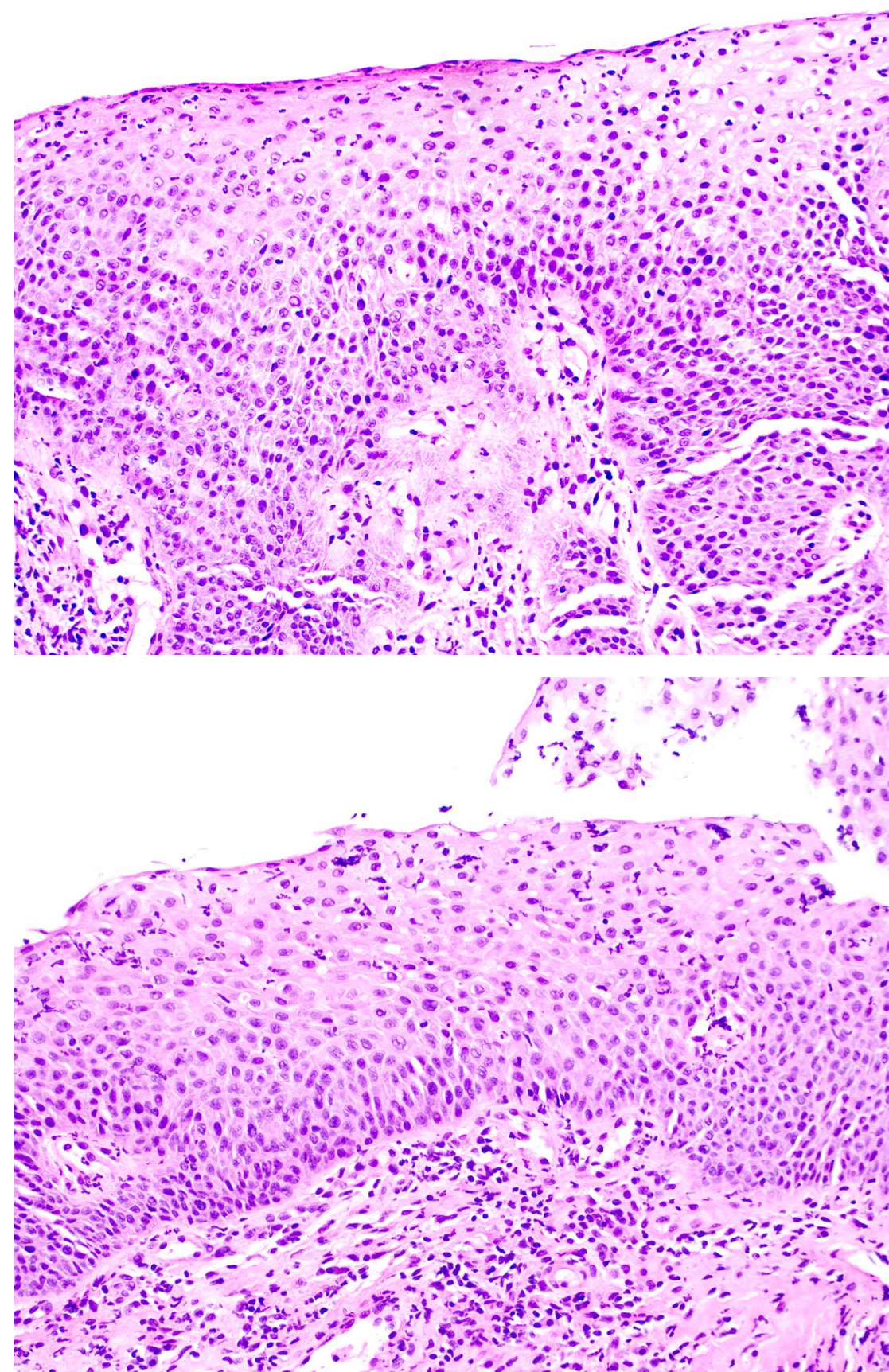


Fig. 3
Histopathology of oral mucosa. H&E stain showing acutely inflamed squamous mucosa with reactive atypia. Dense infiltration of neutrophils is seen in the lamina propria, consistent with infection-induced mucosal injury.

Case presentation

- A 37-year-old female presented with erosive oral lesions, palmar targetoid papules, and esophageal pain one week after completing azithromycin for community-acquired pneumonia.
- Mycoplasma pneumoniae* IgM was positive.
- HSV 1 and 2 DNA PCR from oral lesions and Coxsackie serology testing were negative.
- Endoscopic biopsies confirmed squamous mucosal inflammation.
- The patient was treated with a 5-day course of prednisone and topical clobetasol, with marked clinical improvement.

Discussion

- MIRM is rarely reported in adults and may mimic other severe mucocutaneous reactions.
- This case expands the known demographic and clinical spectrum of MIRM, highlighting prominent cutaneous involvement and esophageal mucositis as a potential manifestation.
- Recognition in adult patients is critical to avoid misdiagnosis

References

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