Steven – Johnson Syndrome secondary to *Mycoplasma pneumoniae* infection

Tallaght University Hospital | Ospidéal Ollscoile Thamhlachta
An Academic Partner of Trinity College Dublin

Nicola McNally [1], Eddie Moloney [1]
1.Department of Surgery, Tallaght University Hospital, D24, Ireland

Background

Stevens-Johnson Syndrome (SJS) is a rare but severe mucocutaneous disorder, often triggered by infections or medications. Mycoplasma pneumoniae is a known infectious cause of SJS, particularly in paediatric and adolescent populations. We present a case of a 17-year-old female who developed SJS secondary to Mycoplasma pneumoniae infection.

Case Presentation

A 17-year-old previously well female presented to the Emergency Department with a one-week history of:

- Flu-like symptoms
- Fever
- Cough
- Sore throat
- Bilateral eye redness
- Loose stools

Commenced on course of Augmentin 3 days earlier by her GP.
No recent travel or known sick contacts.

Examination and Investigation

Vitals: BP 100/84 mmHg, HR 110 bpm (regular), RR 25, SpO_2 97% on room air
Respiratory: Right-sided widespread crepitations, no wheeze
Cardiovascular: S1 + S2, nil added sounds
Skin/Mucosa:

- White exudate around tonsils
- Bilateral conjunctivitis
- Cracked, blistered lips
- Severe sloughing of the oral mucosa

Impression: Lower respiratory tract infection (LRTI) with secondary SJS

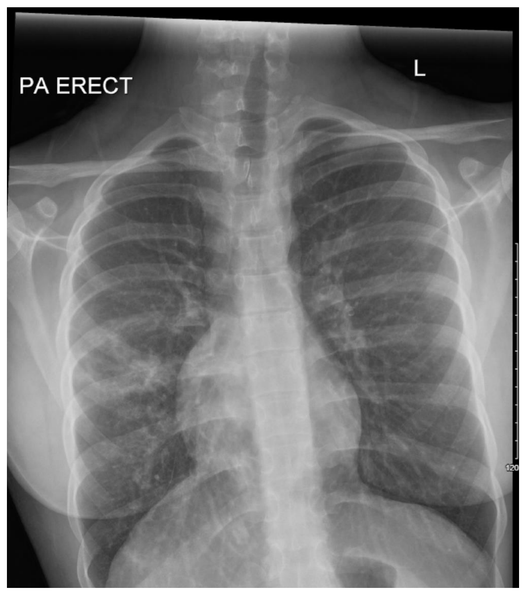

Figure. 1. Chest X-ray demonstrating patchy consolidation in right lower zone

Respiratory BioFire PCR	
Adenovirus	Not detected
Coronavirus 229E	Not detected
Coronavirus HKU1	Not detected
Coronavirus NL63	Not detected
MERS-CoV	Not detected
Sars-CoV-2	Not detected
Human Metapneumovirus	Not detected
Human Rhino/Enterovirus	Not detected
Influenza A	Not detected
Influenza B	Not detected
Parainfluenza Virus 1-4	Not detected
RSV	Not detected
Mycoplasma pneumoniae	**Detected**
Bordetella parapertussis	Not detected
Bordetella pertussis	Not detected
Chlamydia pneumoniae	Not detected

Table 1. Respiratory BioFire PCR panel

Treatment

A comprehensive **multidiscipl**inary approach was pivotal in the management of this case, given the extensive mucocutaneous and systemic involvement associated with *Mycoplasma pneumoniae*-induced Stevens-Johnson Syndrome (SJS). Collaboration across specialties ensured timely, targeted interventions to mitigate complications.

- **Respiratory**: Initiated dual antibiotic therapy with clarithromycin and doxycycline based on positive microbiological confirmation of *M. pneumoniae*. The patient's respiratory status was closely monitored throughout hospitalization.
- **Dermatology**: Diagnosed SJS and commenced prednisolone orodispersible tablets as a mucosal rinse. Adjunct topical therapy included BMX mouthwash, mycostatin oral drops, and fusidic acid for crusted lip lesions and extensive mucosal ulceration.
- **Gynaecology**: Managed labial ulcerations with topical dermovate and provided ongoing surveillance to prevent secondary infection or scarring.
- **Ophthalmology**: Identified episcleritis with bilateral conjunctival injection consistent with mucosal involvement of SJS and advised supportive ophthalmic care.
- **ENT**: Conducted flexible nasoendoscopy, which revealed severe mucositis of the oral cavity; vocal cords and adenoids appeared normal.
- **Dietician**: Due to significant oropharyngeal pain and feeding difficulty, the patient was commenced on total parenteral nutrition (TPN) to maintain nutritional requirements during the acute phase.

Discussion

This case highlights *Mycoplasma pneumoniae* as an important infectious trigger of Stevens-Johnson Syndrome (SJS), particularly in adolescents. Unlike drug-induced SJS, *M. pneumoniae*-associated cases often present with prominent mucosal involvement and minimal skin lesions, which can delay diagnosis.

A high index of suspicion is essential when patients present with mucocutaneous symptoms and respiratory illness. Early identification and a multidisciplinary approach—including respiratory, dermatology, ENT, ophthalmology, gynaecology, and nutrition teams—were key to effective management and recovery in this case.

Prompt antimicrobial therapy, supportive care, and targeted mucosal treatments contributed to a favourable outcome.

Conclusion

This case highlights the importance of recognizing Mycoplasma pneumoniae as a potential trigger for SJS. Early identification and multidisciplinary management are crucial to preventing severe complications. Clinicians should maintain a high index of suspicion for SJS in patients presenting with mucocutaneous symptoms and pneumonia, particularly in young individuals with Mycoplasma pneumoniae infection.

References

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