Severe mucositis without a rash induced by a *Mycoplasma pneumoniae* infection

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DESCRIPTION

A 4-year-old boy with a history of autism spectrum disorder presented at the emergency department (ED) after presentation with fever, productive cough and oral lesions for a week, that became progressively worse. On the previous day, swelling of the lips and conjunctival hyperaemia occurred. On the fourth day of illness, he had been diagnosed with atypical pneumonia and was treated with azithromycin, which was stopped by his parents after a single dose. Physical examination revealed hypoxaemia (SpO_2 91% on room air), dehydration and severe oral mucositis with haemorrhagic ulcers and abundant purulent exudate (figure 1). Ophthalmological evaluation revealed bilateral conjunctival hyperaemia without pseudomembranous conjunctivitis or keratitis. No other mucosal or skin lesions were found. Both cardiac and pulmonary auscultation were normal. A chest X-ray showed a diffuse reticular pattern and laboratory tests revealed normal haemoglobin level, and a normal leucocyte count, along with an elevated neutrophil count 9.91×10^9/L (NR 1.5–8.0× 10^9/L), C reactive protein 21.7 mg/L (NR <5 mg/L) and erythrocyte sedimentation rate 60 mm/h (NR <11 mm/h). He was admitted and commenced on azithromycin, penicillin and clindamycin, as well as supplemental oxygen therapy and parenteral nutrition. The serology for *Mycoplasma pneumoniae* was suggestive of acute infection (IgM 46 UI/mL and IgG 200 UI/mL), and a PCR was positive in the respiratory secretions. Blood PCR for herpes simplex virus and PCR for enterovirus in faeces were negative, as well as the blood serology for Epstein-Barr virus and HIV. Treatment included surgical debridement of the oral mucosa twice, a course of immunoglobulin at a dosage of 1 g/kg/day for 2 days, and eye lubricants, with complete resolution of his symptoms. Antibiotic therapy included a 5-day course of azithromycin and a 10-day course of intravenous penicillin and clindamycin. The patient was then discharged, 10 days after admission, with substantial clinical improvement.

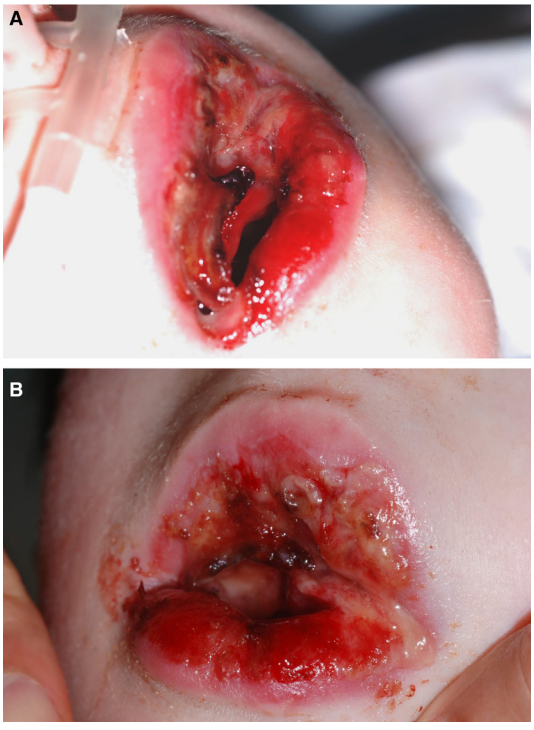

Figure 1 Oral mucositis.

Learning points

- *Mycoplasma pneumoniae* can cause extrapulmonary manifestations and new entities have been described, for example *Mycoplasma pneumoniae* induced rash and mucositis (MIRM).
- When a child presents with mucositis, especially with a clinical history of fever and cough, it is important to considerer MIRM as a possible cause for adequate diagnosis and treatment.

This case demonstrates a severe extrapulmonary manifestation of *M. pneumoniae* infection. Although this bacterium is a well-recognised cause of respiratory infections, it can also be associated with extrapulmonary complications.[1] The continuous evidence of the relationship between this bacterium with atypical mucocutaneous presentations has led to the appearance of rare clinical entities like *Mycoplasma pneumoniae* induced rash and mucositis (MIRM).[1 2] In this case, the presence of exclusive mucosal involvement, the evidence of fever and cough before the mucosal disease, the radiological findings of atypical pneumonia as well as the identification of *M. pneumoniae* enabled the diagnosis of MIRM. This entity is primarily oral and often severe, with scarce or absent skin involvement,[2] as in our case. No consensus exists about the treatment, although the association between empiric antibiotic therapy and corticosteroids or immunoglobulin is common.[3] Our patient arrived at the ED with a serious condition, presenting with hypoxaemia, dehydration and severe oral mucositis, and needing surgical debridement and parenteral nutrition. Despite a good prognosis in most

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cases, recurrence or local complications can occur[1] and, therefore, early recognition and management are essential.

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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