

# Severe Atypical Pneumonia in an Adolescent - A Case Report

**Amal Budensab**

Department of Medicine, SDM College of Medical Sciences and Hospital Dharwad, Karnataka State, India

DOI: <https://doi.org/10.52403/ijhsr.20230425>

## ABSTRACT

Mycoplasma pneumonia is one of the commonest causes of community acquired pneumonia in young adults. We report a case of atypical pneumonia with respiratory distress.

**Keywords:** Mycoplasma pneumoniae, Pneumonia

## INTRODUCTION

Mycoplasma pneumonia occurs worldwide, a common cause of community acquired pneumonia prevalent commonly in school children and college students. We are hereby reporting a case of pneumonia due to Mycoplasma pneumoniae.

## CASE REPORT

A 16-year-old boy presented with fever and cough since 5 days. He also had shortness of breath since 2 days and decrease intake since 2 days.

There was no significant past history of any medical illness, there was history that his younger brother had mother had sore throat a week ago and improved.

### On examination

He was looking ill, conscious, febrile with respiratory distress.

And his vital signs being T 38 HR 110 RR 35 Spo<sub>2</sub> 90 in room air.

Cardiovascular system was normal with heart sounds and no murmur CRT was less than 2 seconds.

Respiratory system there was equal air entry with bilateral coarse crepitations.

Abdomen was soft with no tenderness or no organomegaly.

CNS: he was conscious, GCS was 15/15 with no signs of meningeal irritation

### Investigations:

CBC was normal, CRP was positive. Blood culture results no growth and Sputum culture no growth

Respiratory viral multiplex Covid test was negative,

Mycoplasma IgM antibody was positive and Chest x ray showed bilateral scattered opacities.

### Treatment

He was started on NPAP Fio<sub>2</sub> 30 PEEP 6 and gradually weaned and

Ceftriaxone iv for 7 days and oral azithromycin once daily for 5 days.

Follow up and outcome

Child improved gradually and discharged home.

## DISCUSSION

M. pneumonia (MP) distinguished by the complete absence of a cell wall that result in (a) their dependence to host cells for obtaining essential nutrients, (b) the intrinsic resistance to  $\beta$ -lactam agents, and (c) their pleomorphic shape and lack of visibility on Gram staining. Transmission occurs through respiratory route by droplet spread.

There are two Mycoplasma subtypes type 1 and 2 which are immunologically different, and infection with 1 subtype does not appear to confer immunity to the other subtype. Asymptomatic carriage of infection may last up to 4 months despite of antibiotic therapy. MP commonly affects respiratory system characterized by cough, headache, fever and malaise resulting in gradual onset of pneumonia. It may take 2 weeks to resolve though cough may persist up to 4 weeks.<sup>1</sup>

Mycoplasma pneumoniae [MP] is a respiratory pathogen initially known as “Eaton agent”, causing disease of varied severity, and is the most important causative organism for atypical pneumonia. It causes about 20–40 % of all community acquired pneumonia.<sup>2</sup>

Apart from respiratory tract infections, this organism is also responsible for producing a wide spectrum of non-pulmonary manifestations including neurological, hepatic, cardiac diseases, hemolytic anemia, polyarthritis and erythema multiforme.<sup>3</sup>

Diagnosis by complement fixation test to detect serum immunoglobulin (Ig) M and IgG antibodies against M. pneumoniae are commercially available. Culture takes long time 2-3 weeks and may not be feasible. PCR test may be indicated in severe non-pulmonary involvement.<sup>1</sup>

### Treatment

Mycoplasma does not have a cell wall, which makes the choice of antibiotics restricted to those that act on the bacterial ribosome to inhibit protein synthesis.<sup>4</sup>

Mycoplasmas are sensitive to macrolide antibiotics and are more effective when started early.<sup>1</sup> Mycoplasma pneumoniae usually causes a mild to moderate illness, and the mortality is quite low. However, severe cases do occur, and these cases require early administration of

antimycoplasmal agents and corticosteroids.<sup>5</sup>

Infections with macrolide resistant strains are being increasingly reported which can be treated with doxycycline or levofloxacin.<sup>1</sup>

### CONCLUSION

Mycoplasma pneumoniae is a common respiratory pathogen that produces diseases of varied severity ranging from mild upper respiratory tract infection to severe atypical pneumonia. Clinical suspicion, early diagnosis and treatment helps to prevent morbidity and mortality in susceptible age group.

### Declaration by Authors

**Acknowledgement:** I am thankful to the Director and my teachers of SDM college of medical sciences and Hospital Dharwad India.

**Source of Funding:** None

**Conflict of Interest:** The authors declare no conflict of interest.

### REFERENCES

1. Robert M kliegman, S T Geme Nelson textbook of pediatrics 21 Edition
2. Athira Unni et al. A Fulminant pneumonia due to Mycoplasma pneumoniae a case report Sciencedirect; volume 29 2022
3. Kashyap, Surender; Sarkar, Malay REVIEW ARTICLE Mycoplasma pneumonia Lung india; april- june 2010
4. Stamm DR, Stankewicz HA. Atypical Bacterial Pneumonia . StatPearls Publishing; Nov2020
5. Bajntri B, Venkatram S, Iaz-Fuentes G. Mycoplasma pneumoniae: A Potentially Severe Infection . J Clin Med; October2020

How to cite this article: Amal Budensab. Severe atypical pneumonia in an adolescent - a case report. *Int J Health Sci Res.* 2023; 13(4):210-211.  
DOI: <https://doi.org/10.52403/ijhsr.20230425>

\*\*\*\*\*