

**Short Report**

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**Resistant patterns of Psittacosis treatment in a 65-year-old patient with atypical pneumonia****\*Corresponding Author: Xiaoli Zhong**

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**Background**

Psittacosis, also known as parrot fever, is a zoonotic infectious disease caused by the bacterium *Chlamydia psittaci*. It is primarily transmitted to humans through exposure to infected birds, particularly parrots, parakeets, and other psittacine birds. In rare cases, there have been reports of human-to-human transmission. The case report describes a rare incidence of psittacosis in a middle-aged male patient presenting with atypical pneumonia. Interestingly, we found that the patient responded poorly to moxifloxacin treatment, while doxycycline therapy showed significant efficacy.

**Case presentation**

A 65-year-old male patient presented to the emergency department with a one-month history of intermittent low-grade fever and paroxysmal cough. He enjoys photography and recently visited wetlands for bird photography. Initial physical examination revealed crackles on lung auscultation on the right side. Laboratory tests showed neutrophilic leukocytosis and elevated C-reactive protein levels. Chest X-ray demonstrated pneumonia-like lesions in the right lung. Polymerase Chain Reaction (PCR) testing of the patient's bronchoalveolar lavage fluid confirmed the presence of *Chlamydia psittaci* DNA.

**Treatment and outcome**

The patient was promptly started on intravenous infusion of 400 mg moxifloxacin once daily. On the 5<sup>th</sup> day of hospitalization, he developed rigors, high fever, and dyspnea with temperatures exceeding 39°C. Chest X-ray revealed diffuse bilateral infiltrates. He was transferred to the ICU and empirically switched to intravenous infusion of 100 mg doxycycline twice daily along with prone positioning. Significant clinical improvement was observed within 48 hours of antimicrobial therapy, with complete resolution of symptoms after a 15-day course. Follow-up chest CT scan showed marked improvement of pulmonary infiltrates.

**Discussion**

Psittacosis is often underdiagnosed due to its nonspecific clinical presentation. A slow heart rate asynchronous with fever, along with a history of avian exposure, greatly facilitates early diagnosis and treatment initiation. Doxycycline remains the first-line treatment, with this case report indicating resistance to moxifloxacin among psittacosis patients. While doxycycline is the preferred therapy for psittacosis, moxifloxacin may be considered as an alternative for cases resistant to or intolerant of doxycycline. However, resistance to moxifloxacin in psittacosis may limit its efficacy. Therefore, treatment decisions should be

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based on specific clinical circumstances and resistance testing results.

### Conclusion

This case highlights the importance of considering psittacosis in the differential diagnosis of atypical pneumonia, particularly in febrile patients with a history of avian exposure and slow heart rate. Early recognition, timely treatment, and early identification of specific antibiotic resistance are crucial for preventing complications and ensuring a favorable outcome.

### Highlights

Psittacosis is frequently underdiagnosed due to its nonspecific clinical symptoms.

Recognition of a slow heart rate not synchronized with fever, coupled with avian exposure history, aids in prompt diagnosis and treatment initiation.

Early identification of antibiotic resistance is critical for effective management and favorable patient outcomes in psittacosis.