

Case Report

An Unusual Presentation of Atypical Pneumonia

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Received: 11/01/2017

Revised: 16/02/2017

Accepted: 21/02/2017

ABSTRACT

Atypical Pneumonia is a type of pneumonia which affects the lung parenchyma by atypical organisms such as Chlamydia (intracellular parasites) and Mycoplasma (bacteria without a cell wall). Incidence of overlapping of multiple atypical organisms is relatively rare (1.5:1000). Transmission is mainly airborne in which infected water droplets in air are breathed in. Incubation period is usually between 1 to 4 weeks. We are reporting a case a patient in young age group presenting with Atypical Pneumonia with Erythema Multiforme.

Key Words: Atypical Pneumonia, lung parenchyma, Chlamydia, Mycoplasma.

INTRODUCTION

Atypical Pneumonia is atypical in that it is caused by atypical organisms which include special bacteria, viruses, fungi and protozoa. Main organisms include Chlamydia Pneumonia, Chlamydia Psittaci, Coxiella Burnetti, Francisella Tularensis, Legionella Pneumophila, Mycoplasma Pneumoniae and other viruses such as Respiratory Syncytial Virus, Influenza A & B, Parainfluenza and adenovirus, which affect the pulmonary parenchyma, there is proliferation of microbial pathogens at the alveolar level and the host response to those pathogens. ^[1, 4] Main diagnostic techniques are sputum culture and chest radiographs which show signs of pulmonary infection before physical signs of atypical pneumonia are observable which is known as Occult Pneumonia. Most commonly it involves the lower lobe of lung. Mycoplasma and Chlamydia are more commonly found in young patients and Legionella is more commonly seen in older patients.

CASE

22 year old male patient came to our hospital with complain of low grade fever without chills, cough with expectoration, dyspnea at rest and whitish scaly lesions all over body. On investigations, sputum culture was suggestive of overlapping of Mycoplasma with Chlamydia and chest radiograph was suggestive of consolidation in right lower zone and left middle zone. Patient was given IV Antibiotics, Steroids for Atypical Pneumonia and locally applicant steroid cream for Erythema Multiforme. Patients got better 3 weeks after treatment and skin lesions also decreased.

His reports showed Hb of 12.7 gm%, TC 10500/ cu.mm, Platelets 4.21 lakh/ cu.mm, INR 1.21, Creatinine 0.9 mg/dl, Potassium 4.5 mg/dl, ECG was normal. HIV/HBsAg/HCV was negative. Dengue and MP Antigen was negative. Chest X ray s/o consolidation in left upper zone and right middle zone.

Serological tests for Atypical Pneumonia using Indirect Immunofluorescence Assay suggestive of presence of:

- Mycoplasma Pneumonia [IgG +1 with IgM +1]
- Chlamydia Pneumonia [IgG +2]
- Chlamydia Psittaci [IgG +2]



Figure 1

DISCUSSION

Microorganisms which cause Community-Acquired Pneumonia (CAP) can be divided into viral, typical and atypical microorganisms. Mainly the organisms include Chlamydia Pneumonia, Chlamydia Psittaci, Coxiella Burnetti, Francisella Tularensis, Legionella Pneumophila, Mycoplasma Pneumoniae and other viruses such as Respiratory Syncytial Virus, Influenza A & B, Para influenza and adenovirus, that affect the pulmonary parenchyma. There is proliferation of microbial pathogens at the alveolar level and the host response to those pathogenic organisms. In patients with low to moderately severe Community-Acquired Pneumonia (CAP), treatment of first choice usually does not cover atypical causative microorganisms. To start a pathogen

directed treatment, it is necessary to define certain conditions associated with an increased risk for typical pathogens. With due concern to age, incidence of Community-Acquired Pneumonia (CAP) is highest in young children and adults who are above the age of 65 years. *S. pneumoniae* is the leading cause in all the age groups. Some atypical pathogens show an atypical age distribution. Cases of *L. pneumophila* are very commonly seen in patients in the age group of 35 to 50 years. Cases of Psittacosis have an increased incidence in patients in the age group of 35 to 55 years. Cases of *C. burnetii* occurs mostly in men than in women between the age group of 30 and 69 years. Our patient was a 22 year old young male. Also, patients with chronic obstructive pulmonary disease (COPD) or those patients with a positive smoking status differ in aetiology of Community-Acquired Pneumonia (CAP). [1] Consequently, there could also be a positive or negative association with these conditions and the prevalence of atypical pathogenic organisms. The incidence of overlapping of multiple atypical organisms is relatively rare (1.5:1000). Transmission is mainly airborne in which infected water droplets in air are breathed in. Incubation period is usually between 1 to 4 weeks. A patient of Atypical Pneumonia may present as having symptoms of viral infection such as cough, fever, headache, muscle pain, fatigue, shortness of breath, constant fever, sweating. Thus, in healthy individuals that present with Community Acquired Pneumonia (CAP), one must always opt for Atypical Pneumonia Panel. Early laboratory diagnosis is important in view of starting early Antibiotic therapy. [2, 3]

Table :- 01 Criteria for positivity in serodiagnosis of Chlamydia Pneumonia Infections

	Complement Fixation	Microimmuno fluorescence	Enzyme Immunoassay
Acute Infection	IgM titre >16 or four fold rise in IgM	IgM >16 or IgG titre > 512 or four fold rise in IgG titre	Cut off varies according to manufacturer
Past Infection		IgG titre 16-256	
Antigen	Lipopolysaccharide	Elementary Bodies	Recombinant Lipopolysaccharide
Specificity	Genus-Specific	Species-Specific	Genus-Specific
Sensitivity	10-40%	60-80%	Insufficient Evaluation

CONCLUSION

Healthy individuals can also be affected in Atypical Pneumonia. Thus, early serology is advisable for early diagnosis and treatment.

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How to cite this article: Shah S, Patel A, Shah C et al. An unusual presentation of atypical pneumonia. Int J Health Sci Res. 2017; 7(3):370-372.
