

# International Journal of Research in Health and Allied Sciences

Journal home page: [www.ijrhas.com](http://www.ijrhas.com)

Official Publication of "Society for Scientific Research and Studies" [Regd.]

ISSN: 2455-7803

## Original Research

### Assessment of patients of pneumonia- A clinical study

Arshied Hussain Bhat

MD Medicine

Registrar, GMC Srinagar, Jammu and Kashmir, India

#### ABSTRACT:

**Background:** Community-acquired pneumonia (CAP) is a complex and evolving inflammatory disease. The present study was conducted to determine patients of pneumonia. **Materials & Methods:** The present study was conducted on 114 patients of pneumonia of both genders. A thorough clinical examination was performed. Clinical features and causative organism was assessed. **Results:** Out of 114 patients, males were 65 and females were 49. 72 patients were conscious and 42 were confused. The difference was significant ( $P < 0.05$ ). Common features was fever in 87, cough in 56, tachycardia in 92 and loss of appetite in 102. The difference was significant ( $P < 0.05$ ). **Conclusion:** Authors found that maximum cases were seen in males and features were fever, cough, tachycardia etc.

**Key words:** Pneumonia, Fever, Tachycardia

**Corresponding Author:** Dr. Arshied Hussain Bhat, MD Medicine, Registrar, GMC Srinagar, Jammu and Kashmir, India

**This article may be cited as:** Bhat AH. Assessment of patients of pneumonia- A clinical study. Int J Res Health Allied Sci 2016;2(3):48-50.

#### Introduction

Community-acquired pneumonia (CAP) is a complex and evolving inflammatory disease and critical clinical deterioration can result from various processes: respiratory failure, circulatory failure, de-stabilization of a preexisting comorbidity, appropriateness of initial antibiotic therapy, or hospital acquired illnesses.<sup>1</sup> It is not surprising that no single clinical rule has sufficient operating characteristics to be useful in this wide spectrum of evolution profiles.<sup>2</sup>

Streptococcus pneumoniae is the most commonly isolated pathogen responsible for 35% to 60% of cases.<sup>3</sup> Studies reported during the last two decades from India have also reported a higher prevalence of Klebsiella pneumoniae among culture positive pneumonias. The prevalence of Mycoplasma pneumonia has been reported to be 35% in adults<sup>11</sup> and 27.4% in children.<sup>3</sup> Studies of the effect of function on pneumonia outcomes in older adults have drawn conflicting

conclusions.<sup>4,5</sup> In a prospective study to evaluate risk factors for mortality from lower respiratory tract infections in nursing home residents, it was concluded that activity of daily living (ADL) dependency was an important predictor of mortality. Similarly, in a prospective study of pneumonia in a Department of Veterans Affairs facility, functional status was found to be a major determinant of survival after pneumonia.<sup>4</sup> Alternatively, from a prediction model of 30-day mortality from pneumonia, functional status was not found to be a significant predictor of mortality in nursing home residents. The present study was conducted to determine patients of pneumonia.

#### Materials & Methods

The present study was conducted in the department of Internal Medicine. It comprised of 114 patients of pneumonia of both genders. All patients were informed regarding the study and written consent was obtained.

The study was approved from institutional ethical committee. Data related to participants such as name, age, gender etc. was recorded. A thorough clinical examination was

performed. Clinical features and causative organism was assessed. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

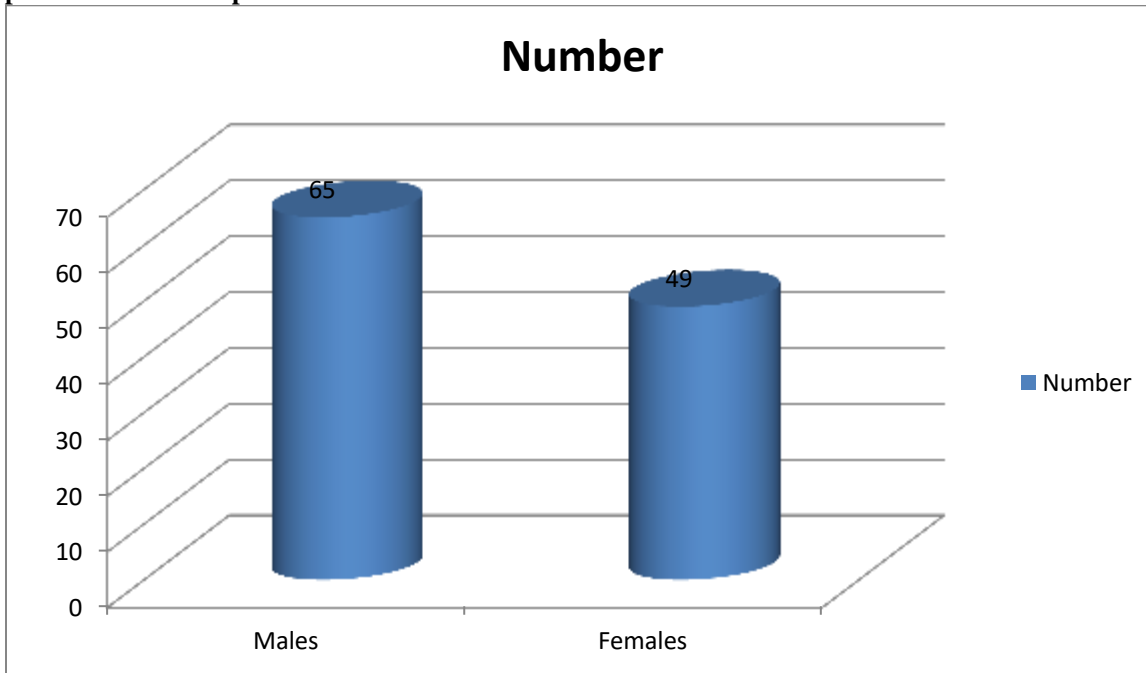
**Results**

**Table I Distribution of patients**

Gender	Males	Females
Number	65	49

Table I, graph I shows that out of 114 patients, males were 65 and females were 49.

**Graph I Distribution of patients**



**Table II Mental state of patients**

Mental state	Number	P value
Conscious	72	0.01
Confused	42	

Table III shows that 72 patients were conscious and 42 were confused. The difference was significant (P< 0.05).

**Table III Clinical features in patients**

Clinical features	Number	P value
Fever	87	0.01
Cough	56	
Tachycardia	92	
Loss of appetite	102	

Table III shows that common features was fever in 87, cough in 56, tachycardia in 92 and loss of appetite in 102. The difference was significant (P< 0.05).

## Discussion

Pneumonia was diagnosed using standard criteria, including chest radiograph demonstrating pneumonia, probable pneumonia, or the presence of a new infiltrate and the presence of at least two of the following symptoms and signs compatible with pneumonia: (1) new or increased cough; (2) new or increased sputum production; (3) fever  $\geq 100.4^{\circ}\text{F}$ ; (4) pleuritic chest pain; (5) new or increased physical findings on chest examination (rales, rhonchi, wheezes, bronchial breathing); or (6) one of the following indications of change in the status or difficulty in breathing (new or increased shortness of breath, respiratory rate  $>25$  breaths per minute, or worsening mental or functional status).<sup>5</sup>

Community-acquired pneumonia (CAP) remains as an infectious cause of mortality and morbidity globally.<sup>6</sup> The common etiological agents of CAP are *Klebsiella pneumoniae*, *Haemophilus influenzae*, *Streptococcus pneumoniae*, and *Pseudomonas aeruginosa*.<sup>7</sup> Pneumonia is reported more in older patients and those with comorbidities, such as chronic liver, cardiac, lung and/or renal diseases, metabolic disorders such as diabetes mellitus, chronic alcoholism, malignancies, absence of spleen (asplenia), immune-compromising conditions or the use of immune-suppressing drugs, exposure to radiation or chemotherapy, and administration of antimicrobials, within the previous 3 months.<sup>8</sup> The present study was conducted to determine patients of pneumonia.

We found that out of 114 patients, males were 65 and females were 49. In infants older than four months and in preschool-aged children, viruses are the most frequent cause of CAP; respiratory syncytial virus (RSV) is the most common. Viral pneumonia occurs more often in the fall and winter than in the spring and summer. Bacterial infections can occur at any time of the year in preschool- and school-aged children and in adolescents. *S. pneumoniae* is the most common bacterial cause of CAP after the neonatal period.<sup>9</sup> Less common bacterial etiologies include *Haemophilus influenzae* type B, *Moraxella catarrhalis*, and *Staphylococcus aureus*. *Mycoplasma pneumoniae* and *Chlamydia pneumoniae* frequently are associated with CAP in pre-school-aged children and are common causes of CAP in older children and adolescents. Pertussis should be considered in all children with CAP, especially if immunizations are not current. *Mycobacterium tuberculosis* also may cause CAP in children at risk for exposure. Co-infection with two or more microbial agents is more common than previously thought, with a rate of up to 41 percent in hospitalized patients.<sup>10</sup>

We found that 72 patients were conscious and 42 were confused. Common features was fever in 87, cough in

56, tachycardia in 92 and loss of appetite in 102. Pneumonia should be suspected if tachypnea occurs in a patient younger than two years with a temperature higher than  $38^{\circ}\text{C}$  ( $100.4^{\circ}\text{F}$ ). Measurement of tachypnea requires a full one-minute count while the child is quiet. The World Health Organization's age-specific criteria for tachypnea are the most widely used: a respiratory rate of more than 50 breaths per minute in infants two to 12 months of age; more than 40 breaths per minute in children one to five years of age; and more than 30 breaths per minute in children older than five years.

## Conclusions

Authors found that maximum cases were seen in males and features were fever, cough, tachycardia etc.

## References

1. Kollef, M. H., L. E. Morrow, R. P. Baughman, D. E. Craven, J. E. McGowan Jr., S. T. Micek, et al. 2008. Health care-associated pneumonia (HCAP): a critical appraisal to improve identification, management, and outcomes— proceedings of the HCAP Summit. *Clin. Infect. Dis.* 2008; 46: 296–334
2. Kollef, M. H., A. Shorr, Y. P. Tabak, V. Gupta, L. Z. Liu, and R. S. Johannes. Epidemiology and outcomes of health-care-associated pneumonia: results from a large US database of culture-positive pneumonia. *Chest* 2005; 128:3854– 3862.
3. Akram, A. R., J. D. Chalmers, and A. T. Hill. Predicting mortality with severity assessment tools in out-patients with community-acquired pneumonia. *QJM* 2011; 104:871–879.
4. Lim, W. S., M. M. van der Eerden, R. Laing, W. G. Boersma, N. Karalus, G. I. Town, et al.. Defining community acquired pneumonia severity on presentation to hospital: an international derivation and validation study. *Thorax* 2003; 58:377–382.
5. Pachon J, Prados MD, Capote F, Cuello JA, Garnacho J, Verano A. Severe community acquired pneumonia: etiology, prognosis and treatment. *Am Rev Respir Dis* 1990; 142:369-73.
6. Dey AB, Nagarkar KM, Kumar V. Clinical presentation and predictors of outcome in adult patients with community acquired pneumonia. *Natl Med J India* 1997;10:169-72.
7. British Thoracic Society Research Committee and Public Health Laboratory Service. The aetiology, management and outcome of severe community-acquired pneumonia on the intensive care unit. *Respir Med* 1992;86:7-13.
8. Alkhayer M, Jenkins PF, Harrison BDW. The outcome of community acquired pneumonia treated on the intensive care unit. *Respir Med* 1990;84:13-6.
9. Zemen FD, Wallach K. Pneumonia in the aged. An analysis of 166 cases of its occurrence in patients 60 years old and over. *Arch Intern Med.* 1996; 77:678.
10. Verghese A, Berk SL. Bacterial pneumonia in the elderly. *Medicine.* 1983; 60:271–285.