Introduction
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Acute Lower Respiratory Tract Infection is the leading cause of death in children below 5 years of age, accounting for about 33 – 35% of all deaths occurring in this age group.

The etiology of pneumonia in children above 6 months of age is well documented. Respiratory viruses are most common causes of pneumonia during first several years of life e.g. – Respiratory Syncitial virus (RSV), parainfluenza, influenza and adenoviruses. The most common bacterial causes of pneumonia in normal children are Streptococcus pneumoniae, Streptococcus pyogens, Staphylococcus aureus and Haemophilus influenza. Pneumocystis carini had been implicated as a causative agent of pneumonia in malnourished and immunodeficient children.

Etiology of pneumonia in younger infants less than 6 months of age is not very well documented. Nearly half of all pneumonia occurring in children less than 5 years age group of children occur in those less than 6 months of age. Pneumonia in this age group is leading cause of death, accounting for about 16 % of all deaths in neonatal period. Moreover pneumonia in this age group may lead to septicemia and meningitis due to physiological and immunological immaturity in these infants. Documentation of the causative agents of lower respiratory tract infection in this age group is therefore important for therapy of pneumonia.
Chlamydia trachomatis has been documented to be pathogen causing lower respiratory tract infection in this age group.

In chlamydia trachomatis pneumonia, the illness tends to be of subacute onset. Coughing and rales are prominent, wheezing is not. Fever is usually absent. Most cases of lower respiratory tract infection respond to antibiotics within one week, and respond to conventional antibiotics like – amoxicillin, co-trimoxazole or oral cephalosporin, but in chlamydia pneumonia course of illness is protracted and they are sensitive to unconventional antibiotics like macrolide and quinolone groups of antibiotics. Thus chlamydia trachomatis becomes an important causative agent of pneumonia in this age group.

Studies from western countries reveal that Chlamydia trachomatis causes 27 – 28% of all pneumonia in this age group being 3rd in ranking as a causative agent of pneumonia after bacterial (E.coli, S. pneumoniae, S. aureus, H. influenzae) and viral causes.

Even though pneumonia due to Chlamydia trachomatis may occur in infants beyond neonatal age group, it is mainly acquired by vertical transmission and can colonize the conjunctival & nasal epithelium and later spread to lower respiratory tract to cause pneumonitis.

The organisms of genus Chlamydia are obligate intracellular parasites and include four species - Chlamydia trachomatis, Chlamydia psittaci, Chlamydia pneumoniae and chlamydia pecorum. Chlamydia trachomatis is a human pathogen that causes ocular diseases (trachoma, inclusion conjunctivitis),
genital diseases (cervicitis, urethritis, salpingitis, LGV) and respiratory diseases as infant pneumonitis. Respiratory Chlamydomosis also occur with infection with avian strains of Chlamydia psittaci and Chlamydia pneumoniae. This pneumonia called psittacosis causes fever, cough, and production of sputum containing pus. This type of pneumonia can be quiet severe and is usually more serious in older patients. Chlamydia pneumoniae usually causes a type of relatively mild walking pneumonia. This pneumonia is more common in older children. Chlamydia pecorum has been found only in cattle and sheep.

Studies in U.S have demonstrated that 5 to 25% of pregnant woman have Chlamydia trachomatis infection of cervix. In these studies approximately ½ to ⅔ of children who are exposed during birth eventually showed laboratory evidence of infection.

About 50% of these infants developed inclusion conjunctivitis, pneumonitis occurred in 10% of children and in some cases otitis media occurred.

A large population of children seek care from hospital for symptoms and signs of lower respiratory tract infection which have persisted for more than 7 days despite treatment. A practical issue is whether the prevalence of chlamydia trachomatis in such children with persistent sign and symptoms is large enough to warrant empirical therapy for chlamydia trachomatis in case of non response to antibiotics. The lack of data on this issue lead us to undertake this study.

Although isolation of Chlamydia trachomatis in cell culture still remains the "gold standard", an increasing number of
reference laboratories have changed to using ELISA for detection of Chlamydia. The ELISA technique offers a number of advantages -; it gives rapid results, large number of samples can be processed easily, no need for specialized staff, assay sensitivity and specificity very good, (sensitivity 75%, specificity 88%, efficiency 87.5%), samples need not be viable.

That is why, IgM ELISA kit test is taken to find out the seroprevalance of chlamydia trachomatis, in this study.