

Prevalence of *B. pertussis*, *L. pneumophila* and *S. pneumonia* in patients referred to Shahid Beheshti Hospital Yasouj by Multiplex PCR

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Pneumonia is an acute infection of the lower respiratory tissues. It is usually caused by infection with viruses or bacteria and less commonly other microorganisms. Pneumonia is the leading cause of death in children worldwide. It kills an estimated 1.2 million children under the age of five years every year - more than AIDS, malaria and tuberculosis combined. *S.pneumonia* is the most common cause of bacterial pneumonia in children with high mortality and morbidity among adults and children. In addition *L.pneumophila* and *B.pertussis* are two agents that cause pneumonia. Accurate and timely diagnosis can lead to bacterial resistor and complication to unwanted side effects to patient. Among many laboratory tests PCR is a rapid test with high susceptibility to diagnosis of disease.

Material and Method: After finding patients and completing the questionnaires, 126 samples of Sputum were collected from the patients. All the samples were exposed to PCR, culture and Gram Staining.

Results: Out of the 126 samples, 35.7 % were male, 64% were female, and the mean age was 44 years. the culture for *B.pertussis* and *L.pneumophila* were negative but the result for *S.pneumonia* was 71.4%. The result of PCR showed that 50% *S.pneumonia*, 10% *L.pneumophila* and 0.8% *B.pertussis* were detected respectively.

Discussion: The results of this study demonstrated that pneumonia is the important disease in the study area, it also show that PCR is one of the rapid method for the diagnosis of pneumonia.