

## Diagnostic value of urinary antigen *Streptococcus pneumoniae* in children With pneumonia: A case control study

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### Abstract

**Background and objectives:** The aim of this study was the detection of *S.pneumoniae* infection by rapid urinary test and blood culture in children with pneumonia in comparison with healthy children.

**Material and Methods:** This case control study was carried out in pediatric ward of Rasoul Akram hospital in Tehran, Iran (2006 - 2009). Fifty-four Community acquired pneumonia (CAP) and 50 healthy children were selected by simple sampling. The urinary antigen detection test (*BINAX NOW co.*) was performed on both cases and controls; and blood culture was done for the cases suffered from Pneumonia.

**Results:** Pneumococcal antigenuria is detected in 31.5 % of CAP and 6 % of controls groups. There is Significant difference between cases and controls (fisher test; CI 95%, P =0.01). None of the children with non-pneumococcal Pneumonia (positive culture) has antigenuria.

**Conclusion:** The possibility of diagnosis of pneumococcal pneumonia in children, by means of blood culture, is low. Thirty-one percent of CAP is due to *S.pneumonia*, by using the rapid antigenuria test. There fore, we recommend using rapid urinary antigen test, in addition to blood Culture test.

**Key words:** CAP (community-acquired pneumonia); *S pneumoniae* urinary antigen test (BINAX now), Blood culture, Children