

## **Hyaluronatylase production by *Streptococcus pneumoniae* isolated from patients and carriers**

### **ABSTRACT**

Hyaluronatylase produced by various microorganisms are capable of degrading hyaluronic acid in connective tissues and initiating the spread of infection by opening an access for the pathogen into host tissues. The present study attempts to determine the distribution of hyaluronatylase-producing *Streptococcus pneumoniae* among invasive, non invasive and carriage isolates, and correlate it with the clinical sources, year of isolation, colonial morphology and their serotypes. A total of 100 isolates from various clinical samples were selected and screened for hyaluronatylase production and presence of the encoding SpnHyl gene. All isolates possessed SpnHyl gene. Ninety-six isolates including 34 carriage isolates were positive for production of hyaluronatylase. Four hyaluronatylase-negative isolates were from blood (2 isolates) and sputum (2 isolates). No significant association was detected among hyaluronatylase production and bacterial characteristics except for colonial morphology ( $p = 0.040$ ). High percentages of hyaluronatylase production in these isolates suggest their possible role as human pathogens.

**Keyword:** Hyaluronatylase; *Streptococcus pneumoniae*