Distribution of pathogens causing nosocomial infection in patients with bronchial asthma

W. Mao and E.H. Cui

Department of Respiration, Huzhou Central Hospital, Huzhou, Zhejiang Province, China

Corresponding author: W. Mao
E-mail: enhaicui@163.com

Received August 4, 2015
Accepted October 11, 2015
Published December 8, 2015
DOI http://dx.doi.org/10.4238/2015.December.8.3

ABSTRACT. This study aimed to analyze nosocomial respiratory infection (NRI) in patients with bronchial asthma. Among the clinical data of 575 asthmatic patients that was collected and analyzed, 52 were diagnosed with NRI. The most common gram-positive bacterial species was Streptococcus pneumoniae, which was detected in 8 patients, whereas the predominant Gram-negative bacteria included Haemophilus influenzae (11 patients), Moraxella catarrhalis (8 patients), and Escherichia coli (7 patients). The simultaneous detection of all strains was predominant in patients older than 65 years of age, whereas the detection rates of S. pneumoniae, H. influenzae, E. coli, and M. catarrhalis were predominant in patients younger than 65 years old. The differences in the detection rates were not significant between the male and female groups. From this study, we can conclude that S. pneumoniae, H. influenzae, E. coli, and M. catarrhalis are common NRI-causing pathogens, and bacterial infection is the main risk factor for NRI in asthmatic patients.

Key words: Bronchial asthma; Distribution of pathogens; Nosocomial infection