Abstract 3.3

A Retrospective Study of Clinical and Microbiological Data of Invasive Pneumococcal Infection at King Chulalongkorn Memorial Hospital, Thailand

Pailin Mahaparn1, Sumanee Nilgate2, Chusana Suankratay1
1Division of Infectious Diseases, Department of Medicine, 2Department of Microbiology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand.

Objectives: To determine the epidemiology, clinical manifestations, microbiology, treatment, and outcomes of patients with invasive pneumococcal infection at King Chulalongkorn Memorial Hospital (KCMH), Thailand.

Methods: A retrospective study of all patients with positive Streptococcus pneumoniae cultures from normally sterile specimens, who were hospitalized at KCMH, Bangkok, Thailand, was carried out from January 1, 2011 to December 31, 2012.

Results: During the study period, there were 39 patients. Of these, there were 27 (69.2%) males with the median (IQR) age of 55.0 (15.0, 89.0) years. Thirty-one (79.54%) patients had preexisting diseases including cardiovascular diseases (12 patients, 30.7%), malignancies (solid tumor) (8, 20.5%), chronic liver diseases (7, 17.9%), diabetes (6, 15.4%), HIV (5, 12.8%), autoimmune diseases (4, 10.3%), hematologic malignancies (3, 7.7%), chronic kidney disease (2, 5.1%), and splenectomy (1, 2.5%). Of 39 patients, there were 22 (56.41%), 6 (15.38%), 4 (10.25%), 3 (7.69%), 2 (5.13%), 1 (2.56%), and 1 (2.56%) patients with pneumonia, primary bacteremia, meningitis, primary peritonitis, arthritis, epiglottitis, and myonecrosis. The most frequently isolated specimen was the blood (38 patients, 100%), followed by the cerebrospinal fluid (2, 5.13%), pleural effusion (1, 2.56%), ascitic fluid (1, 2.56%), pericardial effusion (1, 2.56%), synovial fluid (1, 2.56%), and muscle (1, 2.56%). Of 4 patients with meningitis, there were 1 (25%), 3 (75%), and 4 (100%) patients with penicillin-resistant S. pneumoniae (PRSP), penicillin-susceptible S. pneumoniae (PSSP), and cephalosporin-susceptible S. pneumoniae (CSSP), respectively. Of 35 patients with non-meningitis infection, there were 32 (91.43%), 3 (8.57%), 34 (97.14%), and 1 (2.86%) patients with PSSP, penicillin-intermediate S. pneumoniae (PISP), CSSP, and cephalosporin-intermediate S. pneumoniae (CISP), respectively. 20 (51.28%), 6 (15.38%), and 13 (33.3%) patients had received ceftriaxone or cefotaxime, ceftriaxone plus other antibiotics, and other antibiotics, respectively. The overall mortality rate was 25.64%.

Conclusions: In our institute, there is a high occurrence of pneumococcal pneumonia and primary bacteremia, and the number of patients with PRSP meningitis is stable during the study period, compared to the previous reports (data not shown).