Bacteriology and Clinical Outcome of Parapneumonic Effusion and Empyema Thoracis

Khemtana Jariyawat

1Department of Medicine, Faculty of Medicine, Chiang Mai University, Chiang Mai 50202, Thailand

Background: Parapneumonic effusion is pleural effusion secondary to pneumonia (bacterial or viral) or lung abscess. Parapneumonic effusion occurs in 20% to 40% of patients who are hospitalized with pneumonia. The mortality rate in patients with parapneumonic effusion is higher than those with pneumonia but without parapneumonic effusion. Parapneumonic effusion differs bacteriologically from pneumonia and requires different treatment.

Objective: To study bacteriologically of parapneumonic effusion and mortality rate in Maharaj Nakorn Chiang Mai Hospital.

Methods: All cases of parapneumonic effusion secondary to bacterial pneumonia from January 2013 to December 2016 were retrospectively reviewed.

Results: There were 145 patients, with 10, 67 and 68 of them classified as simple parapneumonic effusion, complicated parapneumonic effusion, and empyema thoracis. In hospital all cause mortality rate was 4.8%. Most cause of death was not due to parapneumonic effusion. Mortality-related prognosis factor was chronic kidney disease. There were 27 culture positive pathogens.

Conclusion: Most cases are culture negative parapneumonic effusion, probably due to prior antibiotic therapy and routine anaerobe culture. In hospital all cause mortality rate is low following early antibiotic therapy and prompt drainage.

Keywords: Parapneumonic Effusion