Prevalence, Clinical Manifestations and Mortality Rate in Patients with Spontaneous Pneumothorax in Thammasat University Hospital

Narongkorn Saiphoklang, Apichart Kanitsap

Abstract

**Background:** Spontaneous pneumothorax (SP) can be a medical emergency requiring early diagnosis and treatment to prevent subsequent respiratory failure and death. SP epidemiologic and clinical data are limited in Thailand.

**Objective:** To study the prevalence, clinical manifestations, and mortality rate of SP in Thai patients.

**Material and Method:** A retrospective case study was conducted between July 2004 and December 2010 in patients with a confirmed diagnosis of SP. Demographic, etiologic, clinical, radiographic, and outcome data were collected.

**Results:** One hundred patients with SP were identified (66 primary, 34 secondary SP), for a prevalence of 76.3 per 100,000 hospital admissions. Males numbered 83. Male to female ratios were 7.5:1 and 4.1:1 for primary and secondary SP, respectively. Mean (± standard deviation) age and body mass index were 35.3±20.3 years and 18.0±2.2 kilogram/meter². The common presenting symptoms were dyspnea (73%), chest pain or discomfort (68%), pleuritic pain (46%), cough (20%), and fever (13%). Causes of secondary SP were pulmonary tuberculosis (19/34, 55.9%), chronic obstructive pulmonary disease (14/34, 41.2%), and pneumonia (8/34, 23.5%). There were 12 deaths (12%), 11 with secondary SP.

**Conclusion:** Spontaneous pneumothorax was relatively common with typical clinical features. Almost all of mortality cases rate suffered secondary SP. Prospective studies are needed to develop evidenced based algorithms, especially for secondary SP patients.

**Keywords:** Spontaneous pneumothorax, Prevalence, Mortality rate

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