

Images

Hamman sign

Colin A. Graham, MD, MPH;* Yin S. Ong, MBBS, FHKAM†

An 18-year old student presented to the emergency department with a 6-hour history of pleuritic central chest pain. There was no history of trauma or cardiopulmonary disease. Physical examination revealed a crunching noise that was synchronous with systole (Hamman sign) and subcutaneous emphysema in the right supraclavicular fossa. The clinical diagnosis of pneumomediastinum was confirmed by urgent chest radiography (Fig. 1). Subsequent computed tomography of the chest and upper abdomen (Fig. 2) confirmed pneumopericardium and pneumomediastinum. There was no evidence of esophageal perforation, either clinically or radiologically. Hamman sign is thought to arise either from cyclical compression of intrapericardial air against the sternum with each heart beat, or from free pleural air being channelled through a lung fissure. Hamman sign is virtually

pathognomonic for pneumomediastinum but may be absent given its transient nature. The patient recovered uneventfully with no treatment necessary.

Competing interests: None declared.

Keywords: Hamman sign, pneumomediastinum, pneumothorax, chest pain, auscultation

Correspondence to: Dr. Colin Graham, Trauma & Emergency Centre, Prince of Wales Hospital, Shatin, New Territories, Hong Kong SAR, China; cagraham@cuhk.edu.hk

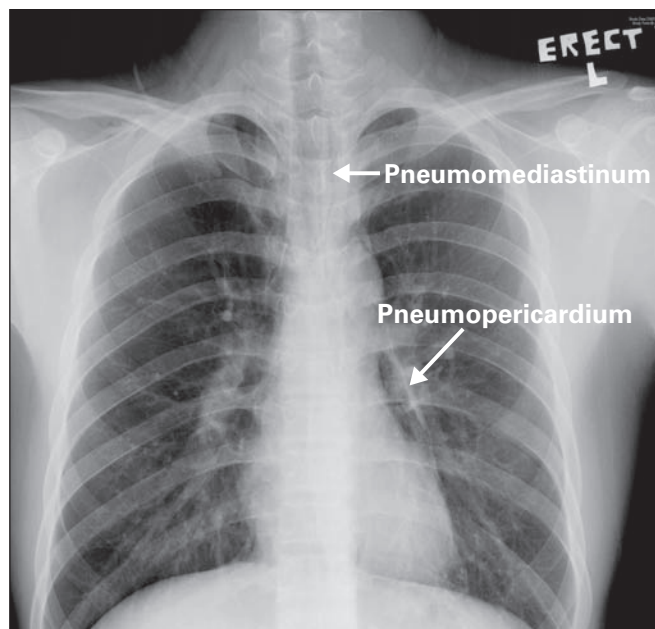


Fig. 1. A chest radiograph confirmed pneumopericardium and pneumomediastinum.

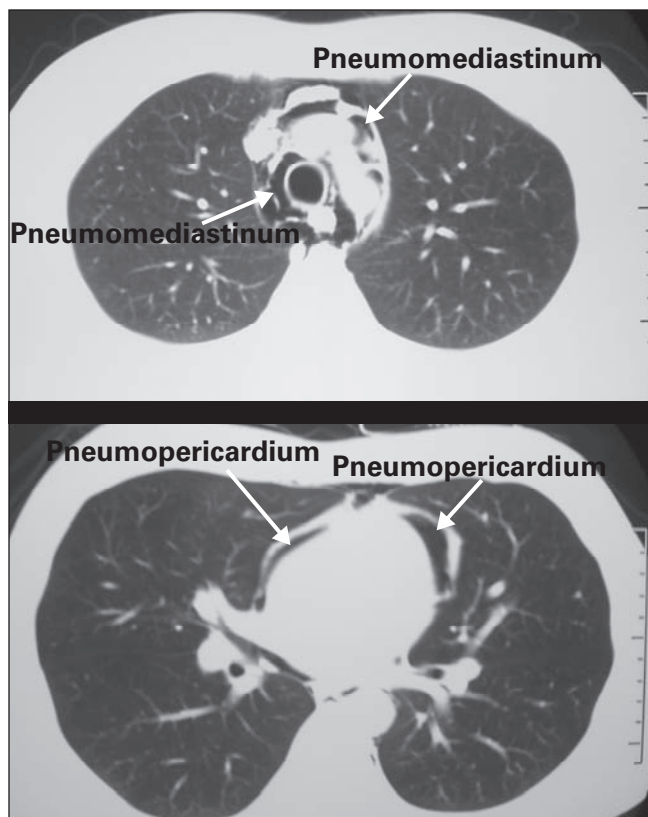


Fig. 2. Subsequent computed tomography of the chest confirmed pneumomediastinum and pneumopericardium at multiple levels.

*Emergency Medicine Academic Unit, Chinese University of Hong Kong, and †Trauma and Emergency Centre, Prince of Wales Hospital, Shatin, New Territories, Hong Kong SAR, China

Submitted Feb. 23, 2009; Accepted Mar. 10, 2009

This article has not been peer reviewed.

CJEM 2010;12(1):63