Clinical Vistas

Postpartum pneumomediastinum (Hamman's syndrome)

This patient's symptoms of substernal pain had evolved progressively, beginning a few days after a rapid but otherwise normal vaginal delivery 2 months before we examined her. Aside from the chest pain, she felt well and had no fever, chills, night sweats or weight change. The results of screening blood work and chest radiography were normal. We ruled out pulmonary embolus, pneumothorax, aortic dissection and mediastinal mass during our differential diagnosis. As part of the workup, a chest CT scan was ordered. It revealed small amounts of free air in the anterior mediastinum (Figure 1). Esophageal perforation was excluded via an upper gastrointestinal radiographic series and esophagogastroscopy.

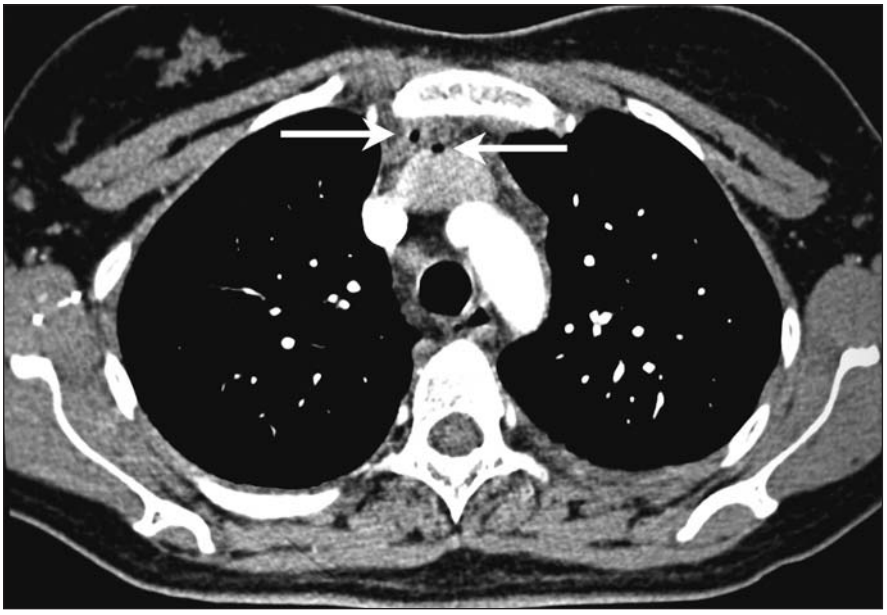

Figure 1: CT scan of the patient's chest, showing small amounts of free air (arrows) in the anterior mediastinum.

Postpartum pneumomediastinum, also termed Hamman's syndrome, typically occurs in young, healthy, primiparous women.[1] It is named after Louis Hamman (1877–1946), the physician who described pneumomediastinum in association with subcutaneous emphysema during pregnancy in 1945.

Hamman's syndrome usually occurs in the second stage of labour. However, clinical appearance is often delayed to the postpartum phase. Incidence is estimated at 1 in 100 000 deliveries. An association with prolonged labour has been proposed, but was not seen in our case. Rupture of marginal alveoli with air entering into the mediastinum is the most likely mechanism. It can be provoked by any Valsalva manoeuver that increases intrathoracic pressure. Apart from Hamman's syndrome associated with labour, spontaneous pneumomediastinum can be seen after forceful coughing related to asthmatic bronchospasm or infections, physical activity and vomiting. It has also been associated with inhalational drug use.[2]

Treatment of postpartum Hamman's syndrome is supportive. Most cases have a benign, self-limiting course, and recurrence is uncommon.

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