

Hamman's syndrome: a case of pneumomediastinum, pneumothorax and extensive subcutaneous emphysema in the second stage of labour.

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Background

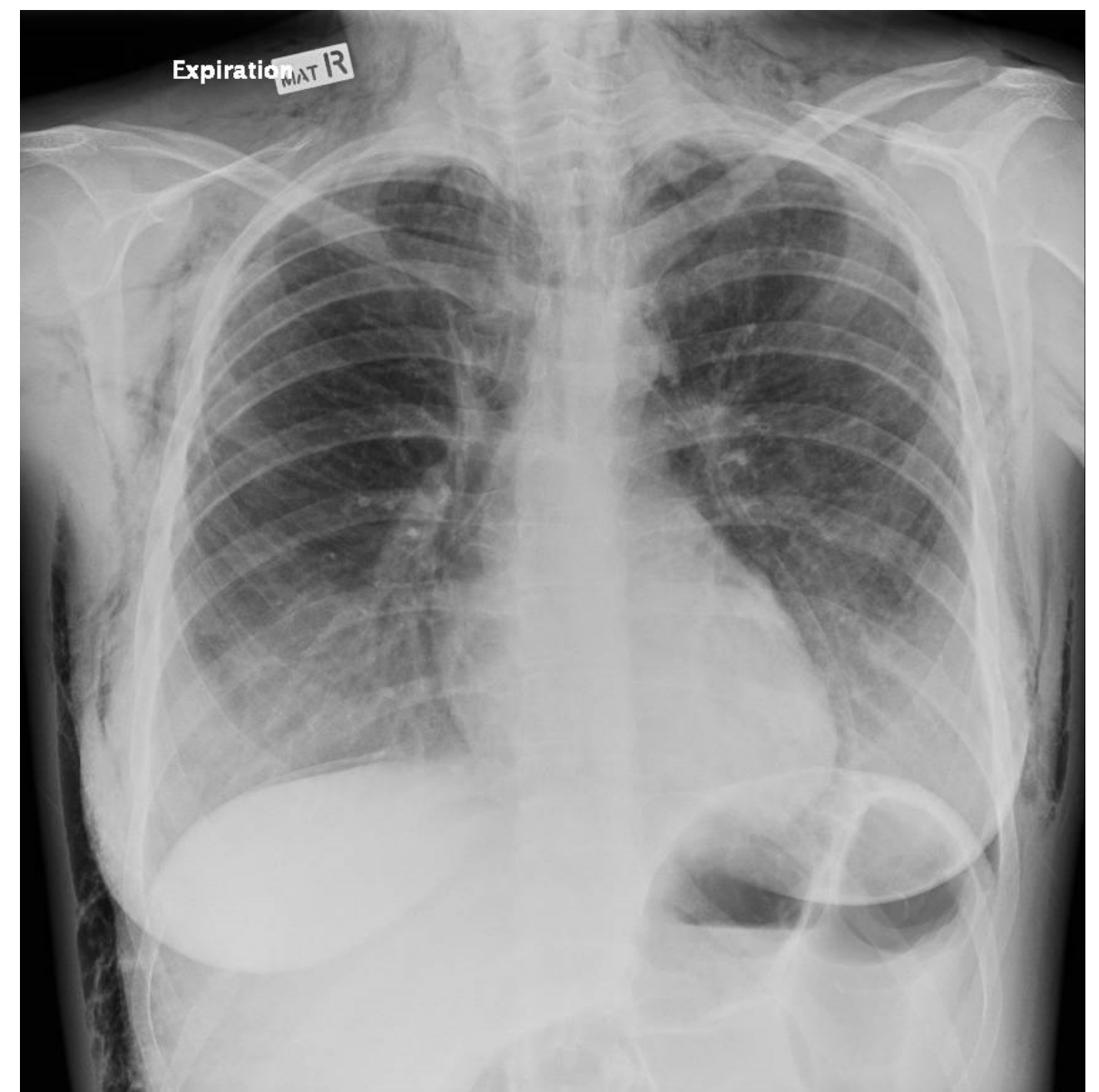
Background: Hamman's syndrome is a rare phenomenon characterised by pneumomediastinum and subcutaneous emphysema, typically occurring in the second stage of labour. Its incidence is estimated to be between 1/2000 to 1/100 000¹. Clinical symptoms usually arise in the immediate postpartum period.

Case

Case: This is a case of a 22 year-old primigravida who presented to hospital in spontaneous labour at 39+4 weeks. She failed to progress in the second stage of labour. Manual rotation for trial of forceps was unsuccessful so she proceeded to a caesarean section. She had pushed for greater than 3 hours prior to delivery. After the delivery, the patient was noted to have facial swelling and subcutaneous crepitus over her face, neck, upper arms, chest and back associated with chest tightness. Her chest x-ray revealed a small right-sided pneumothorax, pneumomediastinum and extensive subcutaneous emphysema. She remained clinically stable while managed conservatively and was discharged on day 4 postpartum when her symptoms had improved.

Discussion

Discussion: The pathophysiology of Hamman's syndrome is hypothesized to be caused by repetitive over-inflation of the lungs and high intra-alveolar pressures during the second stage of labour². Rupture of the marginal alveoli in combination with the Valsalva maneuver can allow dissection of air into the pleural space, mediastinum and subcutaneous tissues². Clinical manifestations include chest pain, dyspnoea, dysphonia, facial swelling and skin crepitations. While Hamman's syndrome is considered to be a benign, self-limiting condition, other more life-threatening differentials must be considered including severe pneumothorax, malignant mediastinum, aortic dissection, myocardial infarction, pulmonary embolism and oesophageal rupture².



¹Segev T, Thor JA, Lentz J, Hong E. Spontaneous Postpartum Pneumomediastinum. *Obstet Gynecol.* 2015;125:58S. doi:10.1097/01.aog.0000463744.00415.d5.

²Amine NO, Lomiguen CM, Iftikhar A, Sahni S. Pregnancy-associated Spontaneous Pneumomediastinum: A Contemporary Review. *Cureus.* 2018. doi:10.7759/cureus.3452.

³Berdai MA, Benlamkadem S, Labib S, Harandou M. Spontaneous Pneumomediastinum in Labor. *Case Rep Obstet Gynecol.* 2017;2017:1-3. doi:10.1155/2017/6235076.