

Spontaneous pneumomediastinum & subcutaneous emphysema postpartum – a rare condition

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Objective

Signs, symptoms, and pathophysiology are reviewed and treatment is discussed .

Background

Subcutaneous emphysema with pneumomediastinum also known as Hamman's syndrome, has a reported rate of 1:100 000 deliveries and usually occurs in the second stage of labour.

However symptoms like swollen face and neck, shortness of breath, chest pain, dyspnoea, palpitations, haemoptysis or sensation of tearing in the neck and crackly skin on physical examination often appear only postpartum.

Prolonged Valsalva manoeuvre during the second stage of labour can lead to rupturing of marginally situated alveoli into the pulmonary interstitial space, tracking air along the bronchovascular connective tissue. Due to a pressure gradient air dissects into the mediastinum and from there into subcutaneous and retroperitoneal tissue. Definitive diagnosis is made radiographically by chest radiograph or CT.

Case Report

A 26-year-old nulliparous woman had a normal vaginal delivery in hospital at 40+1-weeks. On 1st daypostpartum, she noted crackly skin over both sides of her neck and the front of her chest. She denied any dysphagia or dyspnoea. She underwent CT, which revealed extensive subcutaneous emphysema in the neck and over the right chest wall with a small pneumothorax on the left. Oesophageal tear (Boerhaave's syndrome), pulmonary embolism, acute coronary syndrome, tension pneumothorax were ruled out. Reassurance and supportive treatment with appropriate pain management were given with application of empiric antibiotic treatment as suggested in literatur. Symptoms resolved by day 5 postpartum.

Conclusion

It was thought that nulliparity and a prolonged second stage of labour were strongly associated with Hamman's syndrome but there is little published evidence to substantiate this. It appears most likely that it is a sporadic event. So far no cases of Hamman's syndrome have led to reported maternal or fetal deaths.

Pneumomediastinum and subcutaneous emphysema during labour are usually a benign, self-limiting condition and usually requires only supportive management. Recurrence is rare, expectant management of subsequent labour and delivery using epidural analgesia is suggested .