**Hamman's Syndrome**

Abstract Type: Case Report/Case Series
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**Introduction:** Spontaneous pneumomediastinum associated with subcutaneous emphysema is a rare complication of labour and delivery. It commonly occurs in primigravidae during the second stage of labour and is caused by the barotrauma of alveoli. The outcome is usually favourable although potential for complications are always present.

**Case Report:** A 21 year old primigravida at 38 weeks of gestation was admitted with spontaneous onset of labour. The labour progressed satisfactorily. She had strong contractions and was pushing well during contractions. She delivered a healthy male baby.

In the immediate postpartum period, she developed swelling of the face and neck, pain in the neck, chest discomfort and blurring of vision. She was mildly tachypnoeic but not cyanosed. The oxygen saturation was 98% and was haemodynamically stable. The chest radiograph confirmed both pneumomediastinum and subcutaneous emphysema. Clinical diagnosis of Hamman's syndrome was made.

She was closely observed and remained stable for next 24 hrs. Her symptoms gradually resolved and she was discharged home 8 days later.

**Discussion:** Hamman’s Syndrome (1) is believed to occur mostly in the second stage of labour in healthy primiparous women with prolonged labour. It is related to the Valsalva manoeuvre during the second stage, when pushing down raises the interthoracic and intra alveolar pressure. The pressure in the mediastinum is lower than that of the lung periphery so air in the ruptured alveoli pass through the facial planes into the subcutaneous tissue.

Hamman’s Syndrome usually manifests in the postnatal period with chest pain, dyspnoea and pain in the neck. Crepetus, which is palpable in the face and neck, is virtually pathognomonic of the condition and the appearance of subcutaneous emphysema in labour is the hallmark of pneumomediastinum.

The differential diagnosis of this condition include myocardial infarction, dissecting aneurysm of aorta, pulmonary embolus, amniotic fluid embolus and pneumothorax.

A definitive diagnosis is usually made radiographically, especially the lateral view of the chest, which improves the visibility of air in the anterior mediastinum.

Mild symptoms require only supportive and conservative management. If it is diagnosed before delivery the use of entonox is probably contraindicated as it can worsen the pneumomediastinum and may add to respiratory and cardiovascular compromise. Epidural analgesia is the best option for pain relief as it can be used for analgesia during second stage and for instrumental delivery to stop the mother from pushing down. General anaesthesia can be dangerous as IPPV can induce a tension pneumothorax even if nitrous oxide is not used. However, if general anaesthesia is essential, facilities for insertion of a chest drain should immediately be available.

**References:**