A case of subcutaneous emphysema following post-operative vomiting

Sir,

Post-operative nausea and vomiting (PONV) is a common complication after general anaesthesia (GA), rarely it can cause life threatening complications such as subcutaneous emphysema (SCE), which can lead to airway compromise and necessitate intervention.[1] We describe a case of SCE neck, face and upper thorax, which developed 8 hours after Tympanoplasty under GA, following forceful vomiting. Early recognition and proper management is critical to prevent the progression.[2]

A 49-year-old lady diagnosed with left chronic suppurative otitis media was posted for tympanoplasty under GA. She was a hypertensive on treatment, with no other comorbid conditions. Pre-operative investigations were within normal limits. Following pre-medication with Ondansetron 4 mg intravenous (IV), Thiopentone was used for induction of anaesthesia. Atraumatic intubation with no. 7.5 cuffed oral endotracheal tube was facilitated with Suxamethonium 75 mg IV. Anaesthesia was maintained with oxygen, nitrous oxide, Halothane and Vecuronium, and controlled ventilation using Bain’s circuit. Electrocardiogram, non-invasive blood pressure, Peripheral oxygen saturation and end tidal carbon dioxide were monitored. Vecuronium top up was given based on the requirement. After completion of the procedure, neuromuscular blockade was reversed, trachea extubated and shifted to post-anaesthesia care unit, where the patient was monitored for 2 hrs, then shifted to the ward.

About 8 hrs later in the ward, patient had a bout of cough and forceful vomiting following which she developed swelling of the face and neck. She complained of difficulty in breathing and change of voice in the supine position. On examination, patient had swelling of the face, neck and upper part of the chest bilaterally with crepitus over the swelling. Respiratory rate was 20/min, bilateral air entry present, vitals stable, and cardiovascular system clinically normal. She was shifted to Intensive care unit, administered oxygen by mask in propped up position and observed for respiratory and cardiac distress.

Neck X-ray showed air pockets in the anterolateral
The exact source of air could not be established as patient’s relatives declined for further investigations such as computed tomography neck and thorax and oesophagogram. Small esophageal tear could have been the source of air leak. Root cause of the events was vomiting. Hence, there is a need to use antiemetics to prevent such complications in the post-operative period. Early recognition and proper management is of utmost importance to prevent the progression.

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