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Periorbital subcutaneous emphysema: an unreported presentation of perforated duodenal ulcer

The incidence of peptic ulcer disease has declined steadily in recent years owing to the wider availability of proton-pump inhibitors; despite this, complications are common (Hermansson et al, 2009). Perforated duodenal ulcers are a recognized serious complication of peptic ulcer disease, typically presenting with abdominal pain and haemodynamic shock (Thorsen et al, 2013). Facial subcutaneous emphysema usually indicates injury to the upper aerodigestive tract (Wang et al, 2004).

A 71-year-old man presented with a 2-day history of epigastric pain and bilious vomiting with respiratory and haemodynamic compromise. He had bilateral periorbital subcutaneous emphysema (*Figure 1*). A computed tomography scan confirmed the presence of pneumomediastinum and bilateral pneumothoraces as a consequence of a perforated duodenal ulcer (*Figure 2*).

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The presence of subcutaneous emphysema can indicate an occult injury in the gastrointestinal tract. A thorough clinical examination to identify the distribution of subcutaneous emphysema can provide clues to the location of perforation (Oetting et al, 1955). Subcutaneous emphysema of the face can indicate a perforated duodenal ulcer. **BJHM**

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Figure 1. Extensive subcutaneous emphysema still persisting around both eyes 10 days post-admission.

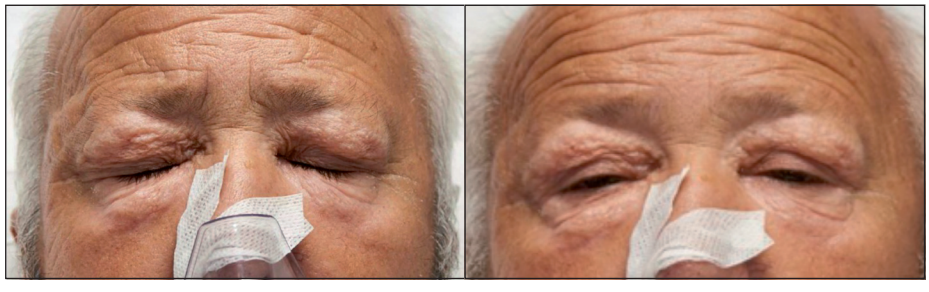

Figure 2. a. Axial computed tomography scan on lung window settings showing extensive air tracking along the tissue planes including the mediastinal structures, and a left pneumothorax. b. Coronal reformatted computed tomography scan on lung window settings.