

AB160. Subcutaneous emphysema: a recreational hazard

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Background: The latest drug treatment figures from the Health Research Board (HRB) show a 50% increase in the number of cases presenting for cocaine treatment between 2017 and 2018. The number of cases treated for cocaine abuse has increased year-on-year from 2013 (708 cases) to 2018 (2,254 cases).

Methods: Unusual sequelae of cocaine abuse that must be recognised early include pneumomediastinum, pneumorrhachis and subcutaneous emphysema. We present a unique case of cocaine abuse that posed a diagnostic and therapeutic challenge.

Results: A 23-year-old male self-presented to the emergency department with complaints of dyspnoea, chest pain, neck swelling and forceful vomiting following alcohol consumption and cocaine inhalation. He was

haemodynamically stable on presentation. The patient had a history of cocaine use. There was no past medical history, no recent travel, trauma or surgery. On physical examination, subcutaneous emphysema was palpable in the neck and chest. Electrocardiogram showed sinus tachycardia. Chest X-ray showed extensive subcutaneous emphysema and a pneumomediastinum. Computed tomography of the thorax confirmed the above. Barium swallow showed no evidence of oesophageal rupture. The patient was managed with oxygen therapy and analgesia, and subsequently discharged the following day with lifestyle advice.

Conclusions: The mechanism of cocaine-induced subcutaneous emphysema and pneumomediastinum is hypothesised to be secondary to barotrauma caused by deep inhalation and prolonged valsalva manoeuvre performed by abusers in order to augment absorption and enhance the euphoriant effect of cocaine. With the rise of cocaine abuse in Ireland, this rare complication should be considered in patients who present with chest pain following cocaine inhalation.

Keywords: Cocaine; subcutaneous emphysema; pneumomediastinum

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