Spontaneous pneumomediastinum and ecstasy abuse

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A 25 year old man attended the accident and emergency department complaining of anterior pleuritic chest pain. Fourteen hours previously he had ingested three ecstasy tablets and danced for several hours. There was no history of trauma or vomiting. Clinical examination suggested pneumomediastinum and this was confirmed on chest radiography (fig 1). The patient was admitted and, in view of the possibility of oesophageal perforation, was kept nil by mouth and started on intravenous fluids and antibiotics. Gastrografin swallow was normal. He was observed for four days and remained well throughout. After discharge, he experienced no further problems.

While the source of our patient's pneumomediastinum remains unclear, the benign clinical course and normal upper gastrointestinal contrast study lessen the likelihood of oesophageal perforation. The temporal association of ecstasy ingestion and subsequent pneumomediastinum, while not proving causation, certainly raises the possibility of a link between the two, especially in view of other case reports. Pittman and Pounsford report a case of pneumomediastinum in a patient who, after ecstasy ingestion, blew a whistle for eight hours.¹ Levine *et al* report on a similarly intoxicated patient who developed a pneumomediastinum after an episode of vomiting.² In the absence of repeated valsava manoeuvres or vomiting, we conclude that the nature of the physical exertion accompanying ecstasy intoxication led to the causative barotrauma.

Figure 1 Radiography showing pneumomediastinum and left infraclavicular subcutaneous emphysema.

Spontaneous pneumomediastinum generally has a benign course. However, given the need to exclude other, more serious, pathologies, it seems likely that most cases will continue to require hospital admission for observation and possibly further investigation.

- 1 Pittman JAL, Pounsford JC. Spontaneous pneumomediastinum and ecstasy abuse. *J Accid Emerg Med* 1997;14:335-6.
- 2 Levine AJ, Drew S, Rees GM. "Ecstasy" induced pneumomediastinum. *J R Soc Med* 1993;86:232-3.

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Severe mediastinal haemorrhage after a rugby tackle

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A 28 year old male received a "head butt" to the sternum during a rugby match. At the end of the match he complained of severe chest pain and shortness of breath. On arrival at hospital his pulse was 80 beats/min, his blood pressure 125/75 mm Hg, and the oxygen saturation on air was 94%. On examination there was local tenderness over the body of the sternum. Radiography showed widening of the mediastinum but no sternal fractures, therefore computed tomography was performed, which showed a mediastinal haematoma and small pleural effusions. He was monitored overnight; the next day he was sweaty with a pulse of 100

beats/min, a blood pressure of 120/70 mm Hg, and oxygen saturation on air of 91%. Repeat chest radiography showed increased mediastinal widening. After transfer to a cardiothoracic centre an echocardiogram showed a mediastinal haematoma but no pericardial effusion and further computed tomography showed an increase in size of the mediastinal haematoma and the left pleural effusion, and also collapse of the left lung (fig 1). Angiograms of the arch of the aorta and pulmonary artery were performed, both of which showed integrity of the vascular systems. A rigid bronchoscopy was performed to exclude injury to the bronchial

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