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Massive emphysema after tooth extraction

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A 25-year-old man was admitted to emergency department who complained of chest pain and distress shortly after he had tooth extraction. However the patient had a good health previously. Subcutaneous crepitus with palpation was easily observed at physical examination. CT scanning and chest x ray showed massive subcutaneous emphysema in his maxillofacial region, neck, mediastinum, left chest and left back (Figs. 1a, b, c, d, 2a). His vital signs were stable. He was given antibiotics, intravenous fluids and symptomatic treatment. CT and chest x ray were rechecked two

days later to show that subcutaneous emphysema was less than before (Figs. 1e, f, 2b). The patient felt better after three days and then he was discharged. Higher transpulmonary pressure caused by pain from the tooth extraction may be the main cause of massive emphysema in this case. The air might originate from alveolar and travel to the mediastinum, chest, back, neck and maxillofacial region through the subcutaneous tissues. Emphysema should be alerted when the patient undergoing tooth extraction feels chest pain and distress.

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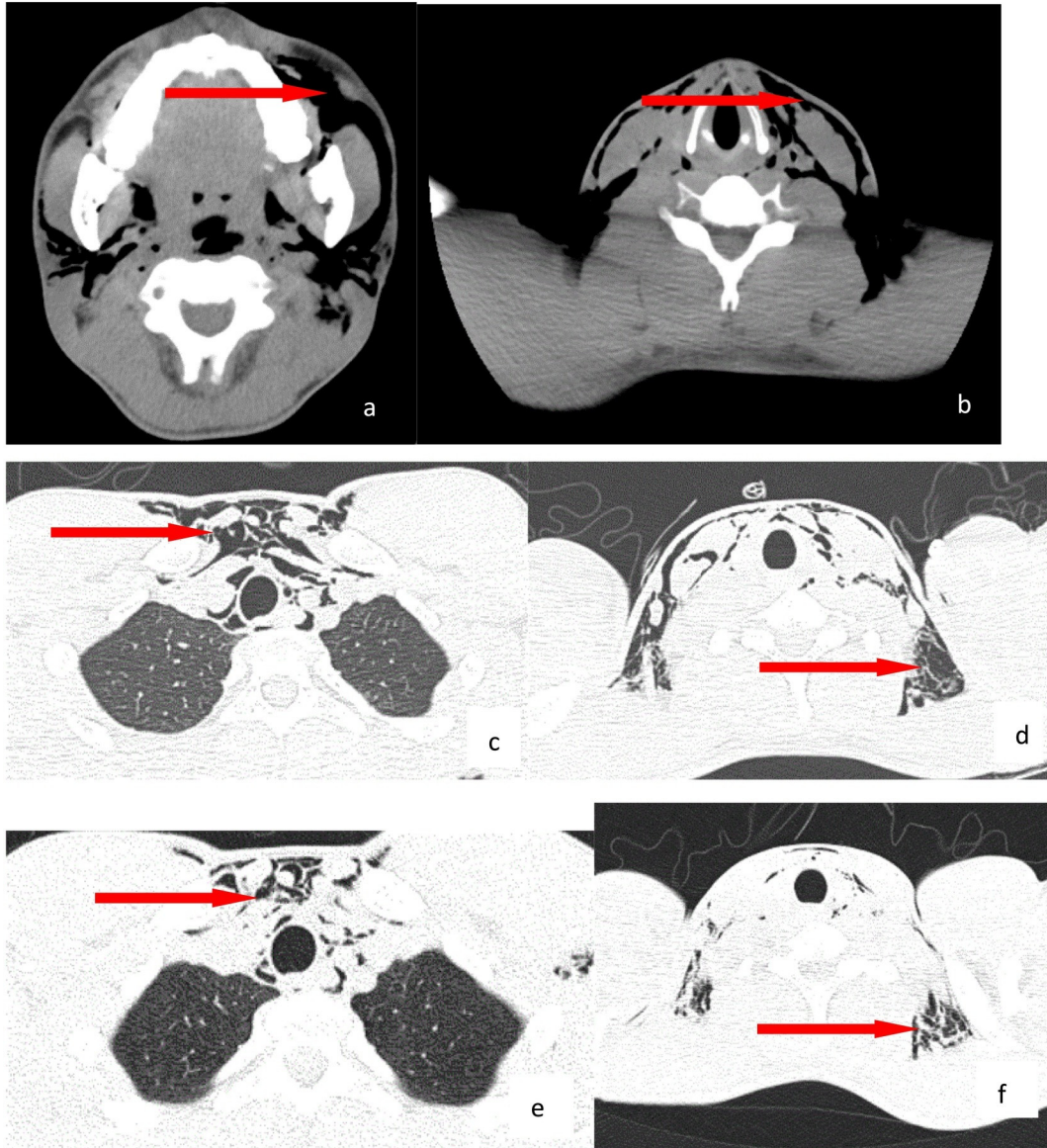


Fig. 1. a CT demonstrated subcutaneous emphysema in maxillofacial region (arrow). b CT demonstrated subcutaneous emphysema in neck (arrow). c CT demonstrated emphysema in mediastinum (arrow). d CT demonstrated subcutaneous emphysema in left chest and left back (arrow). e CT rechecked two days later demonstrated less emphysema in mediastinum (arrow). f CT rechecked two days later demonstrated less subcutaneous emphysema in left chest and left back (arrow).

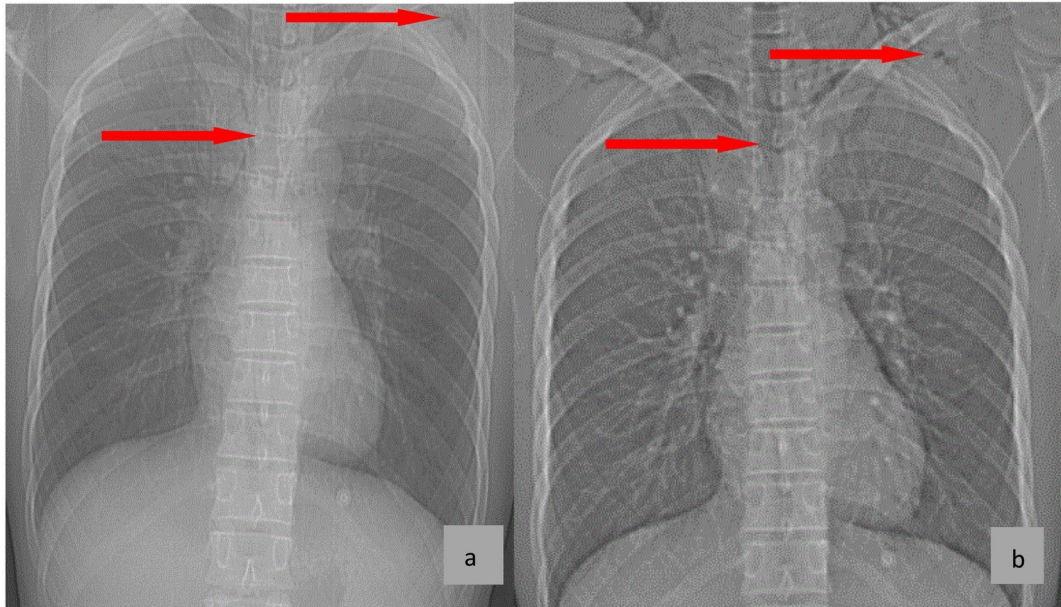


Fig. 2. a Plain chest x ray demonstrated subcutaneous emphysema in mediastinum and left back (arrow). b Plain chest x ray rechecked two days later demonstrated less subcutaneous emphysema in mediastinum and left back (arrow).