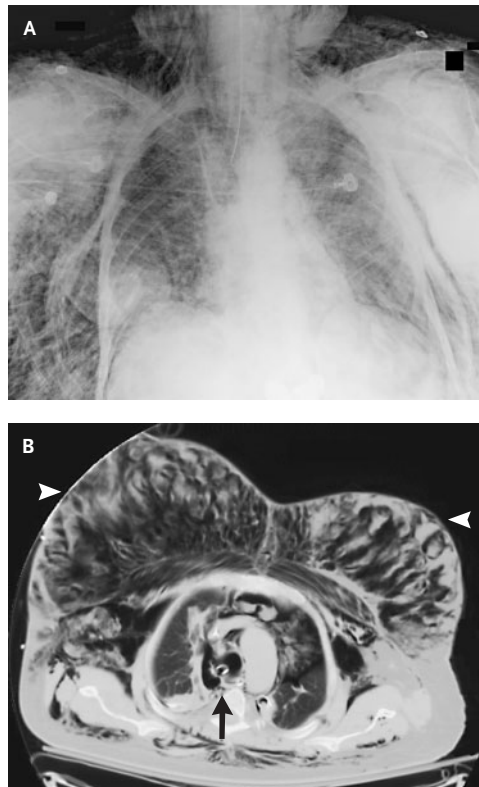


IMAGES IN CLINICAL MEDICINE

Massive Subcutaneous Emphysema after Tracheal Perforation



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A 77-YEAR-OLD WOMAN UNDERWENT LAMINECTOMY AND POSTERIOR spinal fusion from T12 to S1, an operation that was performed while she was in the prone position. At the conclusion of the operation, she was placed in the supine position and taken to the intensive care unit, where her airway pressure rapidly became elevated and massive subcutaneous emphysema and hypoxemia developed. A chest radiograph revealed subcutaneous emphysema but no obvious pneumothorax (Panel A). Bilateral chest tubes were placed, but the patient's hypoxemia did not improve. A computed tomographic scan showed a dramatic amount of subcutaneous emphysema (Panel B, arrowheads) and identified a perforation of the trachea 2 cm above the carina (arrow), with associated pneumomediastinum and pneumothorax. It is presumed that the perforation, which had been caused by the endotracheal tube, had occurred when the patient was rolled from the prone to the supine position at the conclusion of the spinal fusion. The patient subsequently underwent a right thoracotomy and repair of her tracheal injury and has since recovered.

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