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Title: Spontaneous pneumomediastinum & subcutaneous emphysema in idiopathic pulmonary fibrosis (IPF) with bronchial wall leak

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Body: Spontaneous pneumomediastinum & subcutaneous emphysema in IPF is due to alveolar rupture but air leak due to bronchial rupture is rare. We present unique case of bronchial leak seen on bronchoscopy in a patient of IPF. Non traumatic subcutaneous & mediastinal emphysema due to bronchial rupture in IPF is rare & is being reported for the first time. Case report-55 years male admitted with severe progressive dyspnoea & dry cough of 1 month. Massive subcutaneous emphysema was seen on chest, neck & arms. CT thorax showed pneumomediastinum & IPF in lower lobes.

Put on steroids & 100% O₂ but no relief. Bronchoscopy showed air bubbles oozing from irregular opening near superior segment of left lower lobe.

Glue was applied to seal bronchial wall leak & to our amaze subcutaneous emphysema started regressing with clinical improvement. Repeat CT scan showed decrease in mediastinal air. Discussion-Bloomberg considered the cause of non traumatic subcutaneous & mediastinal emphysema to be due to weakness of either alveolar or bronchial wall. Air escapes via bronchovascular channels to mediastinum & subcutaneous tissues, described as Maclin effect.