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Bronchoscopic lung volume reduction

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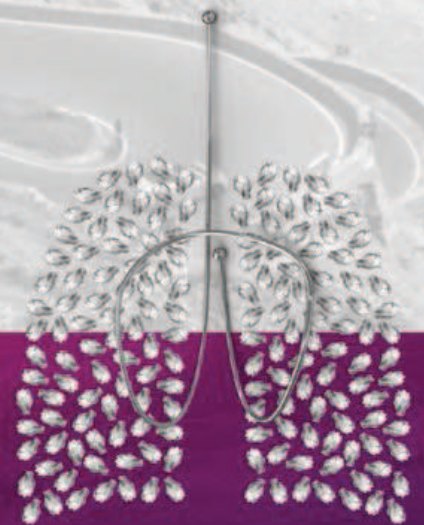
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CHAPTER

2

Emphysema!

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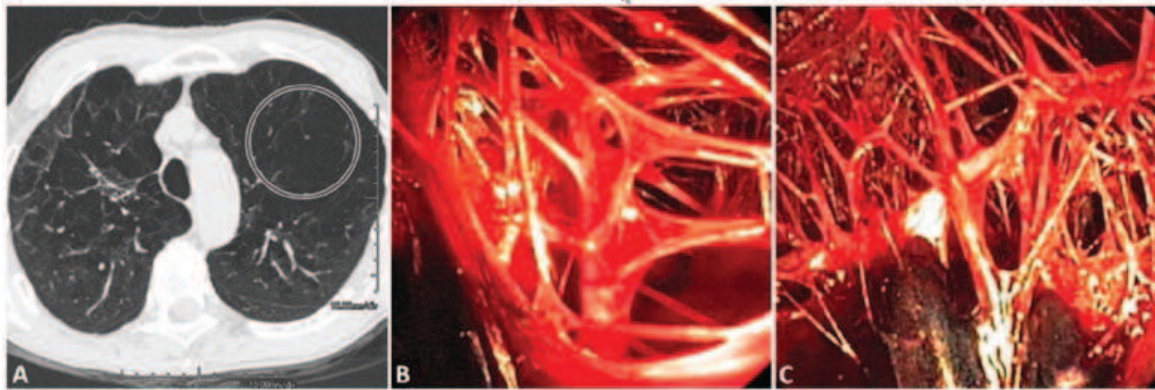
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Images in Pulmonary, Critical Care, Sleep Medicine and the Sciences

A 67-year-old man with end-stage emphysema characterized by severe dynamic hyperinflation was treated using an experimental minor invasive surgical technique by creating a transthoracic airway bypass from the left upper lobe to his third intercostal space, resulting in a small “pneumostoma”.¹ This newly created tract easily facilitates the release of his trapped air.² Figures 1B and 1C (as well as the video in the online supplement) show the endoscopic evaluation (using a bronchoscope) of his “transthoracic airway bypass,” where we were actually able to directly visualize the impressive destructive nature of his emphysema. These images are self-explanatory with respect to why these patients suffer from severe dyspnea. Figure 1A shows the anatomical location of the endoscopically visualized area.

Figure 1.



- (A) Thoracic computed tomography scan showing severe bilateral emphysema. The circle indicates the area that was endoscopically visualized.
- (B & C) Transthoracic endoscopic view of the left upper-lobe lung emphysematous parenchyma.

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