

11.04 Is Fissure Integrity Affected by the Severity of Emphysema and Does This Direct the Choice of Lung Volume Reduction Procedure?

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Background: Endobronchial lung volume reduction (EBLVR) is dependent on near complete fissure integrity (FI). Some assume that fissure integrity declines with the progression and severity of underlying emphysema, leading to the misconception that some patients may become 'too bad' for EBLVR and proceed to premature surgical intervention.

Methods: In 98 patients (53 male, 45 female, mean age 68) undergoing lung volume reduction we analysed emphysema anatomy using quantitative CT software program StratX. We have a policy of offering EBLVR as the first treatment option in those without collateral ventilation (CV) irrespective of severity of emphysema or operative risk (Figure 1).

Results: There was no significant difference in the mean severity of emphysema (%voxel density <910 HU) in the target lobe in those undergoing EBLVR compared to LVRS (60.1% vs 60% p=0.1). There was no significant association between FI and emphysema severity in the target lobe (correlation coefficient 0.03, p=0.74)

Conclusions: FI is not associated with the degree of destruction in the target lung and therefore the severity of disease should not in itself influence the decision to treat by either EBLVR or LVRS. It follows that delaying intervention and risking disease progression will not necessarily reduce the chances of EBLVR being successful.

Disclosures: The authors have no conflict of interest to declare

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