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Title: Bronchoscopic lung volume reduction with coils (BLVR-Coils) for treatment of patients with severe heterogeneous emphysema and bilaterally incomplete fissures. Its effectiveness in everyday endoscopic practice

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Body: In severe heterogeneous emphysema, Coils (PneumRx), for endoscopic lung volume reduction (ELVR) can improve patients' symptoms, well-being and pulmonary function tests (PFT's). Success of the intervention is thought to be independent of collateral ventilation. Objectives: Retrospective analysis to establish whether unilateral ELVR using Coils is effective and safe in patients with incomplete fissures in daily endoscopic routine. Methods: All patients who received Coil treatment in Thoraxklinik within 2012 are included. Coils have been implanted unilaterally, either in the upper or in the lower lobe. Patients were analyzed at 30 and 90 days after treatment. Endpoints are the changes in pulmonary function tests (PFT's), 6-Minute-Walk-Test (6MWT) as well as in modified Medical Research Council (mMRC) Dyspnea Scale. Secondary endpoint is safety. Results: Data from 23 out of 25 patients were available and consistent for retrospective analysis. At 30 days PFT's improved significantly (FEV1 +10.1 %, RV -10.4 %). Clinically important improvements were also seen in 6MWT (+40.5 m), as well as in mMRC(-0.5) Placement of Coils was safe, no technical problems were experienced. 2 patients suffered from pneumothorax and 5 patients from transient postinterventional haemoptysis. No mortality was observed. 90 days' data will be presented at the congress. Conclusion: Unilateral Coil placement for ELVR in everyday endoscopic practice is effective with an acceptable safety profile. Significant improvements in PFT's, 6MWT and mMRC can be observed in patients with severe emphysema and incomplete fissures.