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Title: Outcomes of lung transplantation for bronchiectasis

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Body: Background: Non-cystic fibrosis bronchiectasis (nCFBr) is an infrequent indication for lung transplantation and poorly described compared to CF and COPD. We describe our experience in the largest series to date. Methods: Retrospective review of case-notes and transplant databases from 1990 to date (22 years). Two time cohorts were set (1990-2000 and 2001-present date). Results: 43 patients with nCFBr underwent lung transplantation at our centre. 42 patients had bilateral lung and one had heart-lung transplantation. Median age at transplant was 48 years. Mean pre-transplant FEV1 was 22% predicted (range, 10%-49%; n= 38). At assessment 84% (32 of 38 complete datasets; 32/38) were in respiratory failure. Pre-transplant mean BMI was 25.2kg/m² and osteoporosis was seen in 50% (15/30). Pseudomonas aeruginosa was isolated in 63% (22/35) at assessment and in 46% (18/39) at time of transplant. More patients were transplanted in the first cohort (n=26 vs. n=17). Mean pre-transplant FEV1 (% of predicted) were similar in both time cohorts (21% vs. 23%, p=NS) though patients transplanted in 1990-2000 were younger (mean; 45 vs. 51 years, p=0.026). Our survival values were 74% at 1 year, 64% at 3 years, 61% at 5 years and 48% at 10 years. Infection and multi-organ failure were common causes of death within 1 year post-transplant. Conclusions: P. aeruginosa infection is not universally seen in our cohort. Our survival rates are comparable to prior smaller nCFBr series (Beirne, P.A. et al. J Heart Lung Transplant 2005;24:1530-5) but are poorer than those for CF at our centre (Meachery, G. et al. Thorax 2008;63:725-731). Patients transplanted for nCFBr have significant osteoporosis rates and are increasingly older at transplantation.