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| Lung transplant candidates’ quadriceps strength can decouple from other markers of disease progression with targeted exercise training  |
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| **Introduction/Aim:** Lung transplant candidates are required to participate in pulmonary rehabilitation with six-minute walk distance (6MWD) and quadriceps strength used as targets for active listing. The study aim was to compare changes in 6MWD and quadriceps strength corrected for body weight (QS%) in candidates with chronic obstructive pulmonary disease (COPD) or idiopathic interstitial pneumonias (IIP) being worked up for and awaiting lung transplantation. **Methods:** An observational repeated measures design was used. Actively listed lung transplant candidates with COPD or IIP at a single institution between 2013 and 2023 were included. 6MWD and QS% were assessed at initial transplant assessment, at listing and 2 monthly reassessments until transplanted or delisted (recorded as final assessment). Candidates were encouraged to improve lower limb strength and maintain aerobic capacity with exercise rehabilitation.**Results:** 115 COPD (50 males, mean (±SD) age 57±8 years; FEV1% 22±7%, DLCO 34±12%) and 82 IIP (58 males, age 61±7 years; FVC% 54±15%, DLCO 31±8%) were studied. At initial assessment, there was a significant difference in 6MWD (COPD 279±88m vs IIP 380±108m; p<0.001) but no difference in QS% (COPD 88.6±19.9% vs ± IIP 90.3±19.0%; p=0.551). At listing (289±236 days post), COPD candidates mean 6MWD was similar to initial assessment (-4±75m; p=0.560) but QS% had improved (11.8±13.9%; p<0.001). At listing (181±194 days post), IIP candidates 6MWD was worse (-25±87m; p=0.010) but QS% had improved (11.5±16.0%; p<0.001). At final assessment (467±258 days post), COPD candidates mean 6MWD (-6±52m; p=0.740) and QS% were similar (0.5±14.1%; p=0.892) to listing. At final assessment (341±243 days post), IIP candidates mean 6MWD was worse (-70±103m; p=0.016) but QS% was unchanged (0.1±12.9%; p=0.965).**Conclusion:** IIP candidates had a marked deterioration in 6MWD compared to COPD candidates but both groups were able to improve quadriceps strength with targeted exercise training. Quadriceps strength may be a better measure for determining transplant suitability in a functionally deteriorating candidate.**Grant Support:** Nil  |