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Effects of yogic exercises on physical capacity and health in patients with obstructive pulmonary disease

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Background and Aim: Yogic exercises have been shown to increase functional capacity and decrease symptoms in patients with obstructive pulmonary diseases. However, the knowledge regarding physiological and mental effects of hatha yogic exercises and breathing exercises over longer time periods in patients with obstructive pulmonary diseases remains limited. The aim of this study was to investigate the effects of hatha yoga (HY) compared to an individual program of strength and endurance training (IT) on functional capacity, pulmonary function, perceived exertion, disease specific symptoms and oxygen saturation in patients with obstructive pulmonary diseases.

Methods: 36 patients (23 women, median age = 64, age range: 40–84 yrs) were randomized into HY (n = 19) or IT (n = 17). Both HY and IT involved a 12-week program. Functional capacity (estimated from a 6 minute walk test (6MWT), spirometry, oxygen saturation, perceived exertion and a disease specific chronic respiratory questionnaire (CRQ) were measured at baseline, at 12 weeks and at 6 months.

Results: Significant improvements emerged within each group on 6MWT (HY, baseline: 593.5±116.4, after 12 weeks: 626.2±111.6, p = 0.014; IT, baseline 502.3±136.3, after 12 weeks: 544.8±138.5, p= 0.002). for IT but not HY, these improvements sustained at 6 months. CRQ showed significant improvement in the domain mastery for the HY group and in all domains in the IT group.

Conclusions: Twelve weeks of HY and IT improved functional capacity in both groups with no significant between group effects. However, at the 6-month follow-up effects sustained in the IT but not in the HY group. The IT group, showed self-reported disease-specific improvements across all domains while HY group showed improvements in the mastery domain only. This suggests that both IT and HY have positive short-term effects while IT has long-term effects on functional capacity.