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Title: Physiotherapy intervention improves symptoms in patients with exercise induced laryngeal obstruction

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Body: Introduction Exercise induced laryngeal obstruction (EILO) is a condition where inappropriate vocal cord or glottic closure occurs during exercise. This produces transient upper airway obstruction & mimics asthma. It has been proposed that a physiotherapy delivered breathing & laryngeal retraining program can improve symptoms of EILO, however evidence in this context is lacking. The aim of this study is to report our experience with breathing retraining in EILO. Methodology Patients referred to the out-patient physiotherapy department with EILO Aug 2012-Feb 2013 were evaluated. Diagnosis was made using the gold standard technique; continuous laryngoscopy during exercise. Treatment is standardised over 4 sessions & includes breathing re-training, education & preventative strategies; both at rest & during exercise. Dyspnoea¹² (D12); six minute walking test (6MWT); anxiety score (HAD); asthma quality of life (AQLQ) were evaluated before & after intervention. Results Eight patients were assessed following referral; mean(SD) age 38.3(21.1)yrs, BMI 26.5(8.3), FEV1%pred 94.3(18.6), symptoms 4.4(5.9)yrs. 4 patients had a co-existent diagnosis of asthma. Results were available for 4 patients. Clinically significant improvements were found in quality of life measures (D12 & AQLQ) & exercise capacity (6MWT).

Table1

	Pre	Post	Mean Change
D12	18.6(7.8)	6.3(5.7)	12.3
HAD	4.3(5.1)	3.3(3.1)	1.0
6MWT(m)	445(327)	610(431)	165
AQLQ	4.3	5.2	0.9

Data presented as mean(SD)

Conclusion Our preliminary data indicate that physiotherapy delivered breathing control intervention for EILO leads to a clinically significant improvement in dyspnoea control, exercise capacity & quality of

life. Further data to be presented at the ERS.