IS A PULMONARY REHABILITATION (PR) PROGRAMME EFFECTIVE IN REDUCING SEVERE SYMPTOMS OF ANXIETY AND DEPRESSION IN PATIENTS WITH COPD?

S Harrison, N Greening, J Williams, S Singh. Pulmonary Rehabilitation Research Group, Glenfield Hospital, University Hospitals Leicester NHS Trust, Leicester, England

Introduction Patients with COPD have a high prevalence of anxiety and depression which has been associated with poorer health outcomes. PR has been found to be successful in reducing anxiety and depression. Previous studies have not differentiated between mild, moderate and severe symptoms of anxiety and depression and therefore the efficacy of PR are unproven in treating those across a spectrum of anxious and depressed symptoms. We studied to explore the effectiveness of a PR programme in reducing mild, moderate and severe symptoms of anxiety and depression in patients with COPD.

Methods Patients with a clinical and spirometric (GOLD stage ≥2) diagnosis of COPD were identified from the PR database in Leicester, UK. Patients were categorised into three groups based on their Hospital Anxiety and Depression Scale (HADS) scores pre PR ‘none’ 0–7, ‘probable’ 8–10 and ‘presence’ 11–14. These patients undertook an outpatient PR programme between 2000 and January 2009 at a single centre. Changes in HADS scores were retrospectively compared. The two subscales were analysed separately.

Results 518 patients were identified (mean (SD) age 69.2 (8.80) years, FEV1 39.9% (15.10) predicted, 310 male). Patients with a ‘probable’ and a ‘presence’ of anxiety and depression had a reduction in HADS scores pre-to post-PR (p < 0.001). Patients who had ‘none’ did not have a reduction (p > 0.05) (Abstract P52 Figure 1). An ANOVA with post hoc analysis showed a difference in the amount of change pre to post PR between the three groups. Patients with a ‘presence’ had the greatest reductions in their scores (p < 0.05).

Conclusions PR is effective in reducing moderate and severe symptoms of anxiety and depression in patients with COPD. However, PR is not effective in reducing severe symptoms to a level which represents no presence of anxiety and depression.

THE EFFECT OF CO-MORBIDITIES ON RESPONSE TO PULMONARY REHABILITATION

K A Ingram, R P Fowler, A L Clark, C M Nolan, W D Man. Harefield Pulmonary Rehabilitation Team and Biomedical Research Unit, Royal Brompton & Harefield NHS Foundation Trust, Harefield, UK

Introduction Most patients with COPD are elderly, and the presence of co-morbidities is not uncommon. Co-morbidities are an important determinant of health related quality of life in patients with COPD. Although pulmonary rehabilitation (PR) is well known to improve exercise performance, health-related quality of life and symptoms, a proportion of patients are non-responders. We hypothesised that improvement in exercise capacity and health-related quality of life following PR may be limited in the presence of co-morbidities.

Methods A structured history was taken from 128 patients referred to an 8-week supervised outpatient PR programme. Individuals’ self-reported co-morbidities were assessed by the Charlson index, which assigns to each disease a score that is proportional to the disease related risk of death. The calculated Charlson index did not include COPD in the individual’s score as suggested in the original description. In 115 patients completing the programme, changes in incremental shuttle walk (ISW) and chronic respiratory disease questionnaire (CRO) domains following PR were calculated, and