Impact of walking prescription on the effects of pulmonary rehabilitation in COPD patients with high body mass index.

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Background

Retrospective Analysis
32 moderate COPD patients (FEV1: 63.06 (21.2) %) with high body mass index(30.94(5.089))

8 weeks supervised exercise training/3 sessions per week/
30mins per session

8 weeks education/2 session per week/60mins per session

Topics: Understanding COPD, Role of Exercise in Lung disease, Oxygen and Exercise, Inhaler and Nebuliser use, Energy conservation, Diet advice, Advance care planning and Entitlements.

Methods

Walking Prescription in Physical activity log(PAL)
Walking Prescription = 80% (2 * 6 min walking distance) at maximal intensity (Borg Scale)

Example: Mr. Tom, 70 yrs old, COPD stage 2,Exsmoker 2yrs and 3 chest infection per year referred for PR. On 6MWT, he is able to walk a distance of 400m with maximum Borg of 5.

Walking prescription for Tom = 80% (2 * 400m) = 640m
Toms would reach 640 m in 9.6 mins (approximately 10 mins)

Therefore, the initial prescription for Tom would be 10 mins continuous walk at varying intensity (BORG SCALE) on PA for 4-5 days per week and increase by 3 mins for following 7 weeks, Tom can achieve continuous 31 mins at end of 8 weeks.

Discussion

1. This is the first study in Ireland, to evaluate the effects of walking-prescriptions on PR outcomes in high body mass patients with COPD.
2. Our major finding was incorporating walking prescription with shorter duration (30 mins) of supervised exercise session in PR is effective in improving dyspnoea, exercise endurance, physical activity and quality of life in high body mass patients with COPD.
3. Our patients enjoyed the walking prescription and was well able to perform a mean of 21 mins of walking per day for at least 5 days per week. In sum, attained approximately 100 mins of moderate intensity physical activity per week.
4. We felt the term prescription had effect on the patient exercise behaviour change and had a positive impact on physical activity.

Limitations

• Lack of control Group.
• Short term behaviour change.
• No physiological testing on training effects.
• Subjective data on physical activity.

Conclusion

This study supports a need for a walking prescription to be incorporated in pulmonary rehabilitation to improve PA in COPD patients with high BMI.

Objective

We evaluated the combined effects of walking prescription and pulmonary rehabilitation on exercise endurance, PA and QOL in COPD patients with high body mass index.

References


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