

A retrospective observational study of continuous positive airway pressure (CPAP) compliance rates

D.A. Price, J. Furlong, M.A. Shaw, D. Marple-Horvat, J. Hadcroft

Introduction

Recent studies have shown that asymptomatic patients are significantly less likely to comply with CPAP therapy when compared to symptomatic patients. We set out to test whether this was true in our patient population.

Method

Between December 2010 and November 2013, 238 patients referred to our institution with a diagnosis of obstructive sleep apnoea were divided into two study groups. Patients were put into the 'symptomatic' group (n=84) if they scored ≥ 11 on the Epworth Sleepiness Scale (ESS), and into the 'asymptomatic' group (n=154) if they scored ≤ 10 but their history suggested that their symptoms were more significant. All patients were then treated with the same CPAP therapy strategy. Data including compliance rates (defined as >4hrs use for 70% of the observed nights) and ESS scores were collected at diagnosis, and at 2 weeks, 3 months and 6 months follow-up, then analysed according to group membership.

Results

At 6 months, 170 patients remained in the study, dropout rates were slightly higher in the 'asymptomatic' group, 30.5% (n=107) vs. 25.0% (n=63), but this was not statistically significant (p=0.37). Compliance rates between the 'asymptomatic' group and the 'symptomatic' group at each of the study stages were as follows: at 2 weeks 57.6% vs. 58.6% (p=0.89), at 3 months 67.0% vs. 64.6% (p=0.75) and at 6 months 71.0% vs. 69.8% (p=0.87).

Discussion

Although it is generally accepted that compliance rates are much lower in 'asymptomatic' patients, this study suggests that ESS should not be used in isolation to predict compliance rates. CPAP should still be offered to patients with sleep apnoea if their symptoms suggest they have the syndrome, even in the absence of a high ESS score.