The Role of Oximetry in Patients with Obstructive Sleep Apnea

Abstract:
Sir,

Obstructive Sleep Apnea (OSA) is estimated to affect one in five adults (approximately 100,000 adults in Ireland). One in fifteen adults has moderate to severe OSA. The average waiting time for a polysomnography (PSG) takes several months. OSA is a major contributor of cardiovascular, metabolic co morbidities and is also recognised to greatly increase the risk of motor vehicle accident and injury which have a substantial implications for the health service.

A retrospective charts review of 48 consecutive referrals to Peamount Healthcare were examined. Demographics, clinical assessment and oximetry results were recorded. All 48 patients were given a CPAP trial for 2 consecutive days and their oximetry data and Epworth sleep score were compared at admission and at day 2. 33 (69%) patients were male. 4 (8.3%) patients were aged less than 30, 24 (50%) patients were aged between 30 and 40, 14 (29.2%) patients were aged between 41 and 50, 6 (12.5%) patients were aged greater than 50. 45 (94%) patients complained of snoring, 36 (75%) patients had witnessed apnea, 37 (77%) patients complained of daytime somnolence. 32 (67%) patients had an Epworth Sleep Score (ESS) of greater than 11 and after 2 days of CPAP trial, there were a 100% improvement (ESS < 11). 32 (67%) patients had a desaturation index of greater than 15% on their oximetry. After 2 days of CPAP trial, all these 32 patients again had a 100% improvement (Desaturation Index < 5%). 16 (33%) patients with inconclusive results were referred for full PSG and 5 (10%) patients were diagnosed with OSA. Although PSG is the gold standard in diagnosing OSA, our retrospective study has shown to reduce waiting time for PSG at Peamount healthcare. With only 33% of patients being referred for PSG, this study shows that 67% were diagnosed and started on CPAP within a few weeks from their referral date. In Ireland only 25% of patients with OSA has been identified. With disease awareness increasing, it is expected that the rates of OSA diagnosis will increased by 2 to 3 folds. UK estimates suggest that a population of 500,000 will generate 500 referrals and 200 new prescriptions for CPAP per year. These facts reinforce the importance of oximetry and CPAP trial in assessing and managing patients with OSA in the Irish healthcare system.

M Kooblall, SJ Lane, E Moloney
Peamount Healthcare, Newcastle, Co Dublin
Email: mineshannch@gmail.com

References
1. RCPI Medical Workforce planning Feb 2014;198