

A case of sleep apnoea

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Abstract

This case report represents a comprehensive overview of the assessment, diagnosis, and subsequent management of a 60 year old patient who sought medical attention due to debilitating fatigue. Despite displaying atypical symptoms and an absence of characteristic signs, polysomnography revealed significant degree of obstructive sleep apnea. This case highlights the importance of considering sleep-related disorders in the differential diagnosis of fatigue and the remarkable efficacy of continuous positive airway pressure (CPAP) therapy in improving the patient's quality of life.

Keywords: obstructive sleep apnea, fatigue, continuous positive airway pressure, case report

Background

Sleep apnea is a sleep disorder characterised by interruptions in breathing during sleep. These interruptions, called apneas, can be caused by relaxation of throat muscles, leading to reduced airflow or complete blockage. This disrupts the regular cycle and can result in poor sleep quality and daytime fatigue. Excessive daytime fatigue is a common complaint encountered in clinical practice. It is estimated that one billion people around the world are affected by obstructive sleep apnea and there can be more than 50 % prevalence of the condition in some countries (1). While various aetiologies can underlie this symptom, it is essential to consider sleep-related disorders, particularly obstructive sleep apnea, in the diagnostic evaluation of fatigue. Untreated and undiagnosed obstructive sleep apnea can have major health complications such as cardiovascular disease, stroke, metabolic disease, excessive daytime sleepiness, work-place errors, traffic accidents and death (2).

Case Report

A 60 year old female of Middle Eastern origin presented to the family physician with severe tiredness for about six months despite obtaining what she believed was adequate nighttime sleep (7-8 hours). Notably, the patient did not express the typical symptoms of loud snoring or excessive daytime sleepiness. There were no other symptoms noted by patient from history taking. She denied any unexplained weight loss. She used to be active in the past; now even simple tasks feel like a huge effort. It started affecting her work and she had to cut down on her social activities. Her medical history was notable for mild hypertension, was on anti hypertensive medication and she reported no family history of sleep disorder. She does not smoke and she has a balanced diet. Her mood was stable but she feels down when she cannot do her usual daytime activities.

Upon a thorough examination her vital signs including her blood pressure, heart /respiratory rate and oxygen saturation were all within normal ranges. The patient revealed no signs of respiratory distress. Cardiovascular and neurological examinations yielded unremarkable findings. Her BMI was 32.

Given the severity of fatigue coupled with absence of apparent comorbidities or other significant symptoms, extensive investigations for the cause of tiredness were carried out. These included blood tests such as HbA1c, FBC, Ferritin, B12/Folate, ESR, Liver function test, Renal function test, Thyroid function test, IgA tissue transglutaminase and Vitamin D. All tests were back normal apart from folic acid level which was low. It had been thought symptoms of fatigue may be related and she was given supplements accordingly.

Symptoms were not improved and the patient came back to her family physician with the same symptoms. This time she mentioned while on holiday a friend mentioned weird noises while she was sleeping. Subsequently an assessment was carried out in the medical practice which includes a questionnaire called Epworth Sleepiness Scale to assess daytime sleepiness and likelihood of obstructive sleep apnea. The result was 8 which suggested mild symptoms. STOP-BANG score result suggested mild to moderate obstructive sleep apnea. Due to unexplained symptoms of tiredness and results of both questionnaires, referral was made to a sleep clinic to carry out sleeping studies.

The patient had polysomnography which revealed a significantly elevated apnea-hypopnea index AHI of 30, indicative of moderate to severe obstructive sleep apnea. Initiation of continuous positive airway pressure (CPAP) therapy was promptly organised. Following an initial period, the patient reported a substantial improvement in daytime alertness and energy levels. Subsequent polysomnography demonstrated a notable reduction in the AHI to 3, signifying the remarkable effectiveness of CPAP therapy in relieving obstructive sleep apnea.

Discussion

Obstructive sleep apnea can be a challenge to healthcare professionals, and it may need more awareness in the clinical setting to the complications of this condition. It can be life threatening, however it is a preventable condition with a proper treatment (5). Unfortunately, it is still underdiagnosed around the world and it is predicted that the life expectancy of patients with obstructive sleep apnea is less than the general public (6).

This case demonstrated the critical importance of maintaining a high index of suspicion for atypical presentations of obstructive sleep apnea, even in the absence of classic symptoms like prominent snoring or daytime sleepiness (7). The common symptoms of sleep apnea include unrefreshing sleeping, morning headaches, feeling of choking while sleeping and memory deficit (3). Careful assessment of risk factors is quite important to determine chances of sleep apnea. It is crucial to address these factors which can have a positive impact on a patient's life. A patient could be considered as a high risk of developing sleep apnea with any of the following: obesity, uncontrolled hypertension, type 2 diabetes mellitus, stroke and TIA, heart failure, asthma and COPD, thyroid related conditions and atrial fibrillation (4). There are two ways to assess patients with suspected sleep apnea that can aid diagnosis; they are Epworth Sleepiness Scale and STOP-Bang questionnaires (8). Prompt referral and rigorous diagnostic evaluation, including polysomnography, is imperative for accurate diagnosis. Polysomnography is the gold standard test to diagnose sleep apnea (9). The demonstrable efficacy of CPAP therapy in normalising sleep patterns and ameliorating symptoms further underscores its significance as a frontline intervention for OSA (10).

Conclusion

This case report serves as a poignant reminder of the necessity for vigilance in recognising and addressing atypical presentation of obstructive sleep apnea, particularly in patients presenting with severe fatigue. Early diagnosis and intervention with CPAP therapy can lead to a profound enhancement in the patient's quality of life and overall well-being.

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