

Obstructive Sleep Apnea and Type 1 Diabetes Mellitus

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INTRODUCTION

- Obstructive Sleep Apnea (OSA) is a common and frequently unrecognized disorder with a prevalence of approximately 4% in middle-aged men and 2% in middle-aged women.¹
- It is often found in patients with obesity and type 2 diabetes mellitus.
- This case report shows the infrequently documented link between OSA and type 1 diabetes and highlights the need to confirm the type of diabetes especially in complex and atypical cases.

CASE REPORT

- A 44 year old gentleman, with a BMI of 34, was diagnosed with type 2 diabetes and was treated with metformin and given lifestyle advice.
- One year later, he became unwell with 2.5 stone weight loss, polyuria and polydipsia. The history pointed towards a diagnosis of type 1 diabetes and he was commenced on basal bolus insulin regimen.
- During one of his clinic consultations, he described symptoms of OSA and both Epworth Sleepiness Scale and formal sleep studies performed subsequently confirmed the diagnosis of OSA.
- Anti-GAD antibody was positive, confirming the diagnosis of latent autoimmune diabetes of adult (LADA), a subset of type 1 diabetes.
- Metformin was re-initiated and within 6 months, his insulin requirement was reduced by about 50%. He only had minimal weight loss during this period.

CONCLUSIONS

- There are now studies showing an unexpectedly high prevalence of OSA in type 1 diabetes patients independent of weight and this case serves as a reminder the importance of screening for OSA in this patient group due to its serious implications.
- Secondly, this patient showed a remarkable reduction in insulin requirement after metformin initiation although he had type 1 diabetes. Most studies showed only an average of 20% insulin sparing effect.

References

1. T. Young, M. Palta, J. Dempsey, J. Skatrud, S. Weber, and S. Badr, "The occurrence of sleep-disordered breathing among middle-aged adults," The New England Journal of Medicine, vol. 328, no. 17, pp. 1230–1235, 1993.

