Untreated obstructive sleep apnoea as a therapeutic target in acute aortic dissection

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DESCRIPTION

A 59-year-old man developed sudden onset of chest pain and was admitted to our hospital. Emergent contrast-enhanced CT showed the development of retrograde-type A aortic dissection (AD) with patent false lumen in the descending aorta and thrombosed false lumen in the ascending aorta (figure 1). The patient was treated with intensive drug therapy. We evaluated blood pressure (BP) variability by ambulatory BP monitoring (ABPM), which revealed that the mean BP over 24 h was 150/75 mm Hg with a typical morning surge (figure 2B) despite a combination of several antihypertensive medications for previous 1 month such as amlodipine besilate 10 mg, telmisartan 80 mg, bisoprolol fumarate 5 mg, doxazosin mesilate 8 mg, eplerenone 50 mg, trichlormethiazide 2 mg and methylldopa 50 mg/day. Obstructive sleep apnoea (OSA) has been reported as a cause of drug-resistant hypertension,1 so we performed sleep polygraphic study. This revealed severe OSA with an apnoea-hypopnea index of 56.7/h and lowest percutaneous oxygen saturation of 84% (figure 2A). We started continuous positive airway pressure (CPAP) for the treatment of OSA. Two weeks after the introduction of CPAP, follow-up ABPM revealed a marked decrease in mean systolic and diastolic BP to 126/66 mm Hg (figure 2C). History of hypertension is the most common predisposing factor for AD.2 The presence of OSA is associated with increased risk of incident hypertension, and treatment with CPAP therapy reduces this risk.3 The present case suggested that OSA should be considered in the differential diagnosis of resistant hypertension in the recovery period following dissection. As a specific treatment for OSA, CPAP would assist the...
management of drug-resistant hypertension, however CPAP has not yet been proven to reduce the risk of AD. Among patients with AD, OSA should be considered in the differential diagnosis of drug-resistant hypertension, which is a major risk factor for AD.

Competing interests None.
Patient consent Obtained.

REFERENCES

