

Orthostatic hypotension in a patient with autonomic failure

Przypadek hipotonii ortostatycznej u chorego z niewydolnością układu autonomicznego

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We present the case of a 47-year-old man with diagnosed orthostatic hypotension (OH). He had a history of myocarditis, degenerative disease of the cervical spine and a 30-year smoking habit. Although he had got used to increased salt (as much as 15–20 g per day) and water intake, had made lifestyle changes, his symptoms worsened over time. Therefore, the patient was admitted for further evaluation of OH which had been diagnosed ten years earlier. Prior to the admission day syncopes occurred several times a day when he was in an upright position. Echocardiography revealed thickening of left ventricle walls to 1.6 cm. Numerous Holter electrocardiography tests excluded arrhythmias and conduction disturbances, while 24-h blood pressure (BP) monitoring showed an inverted diurnal profile of BP with numerous episodes of hypotension (Fig. 1). Doppler ultrasound of the carotid, subclavian and renal arteries did not indicate any deviation. Carotid sinus massage showed physiological response to pressure. During the tilt test were seen neurological symptoms such as: tremors, muscle tension, and involuntary movements which preceded syncope. On the basis of the result of the tilt test, neurological diagnostics was extended. In computed tomography (CT) of supra-aortic and intracranial arteries, neither showed any vascular pathologies. Unexpectedly an osteolytic tumour was found in the sphenoid bone nearby the true lumen of left internal carotid artery. However, the tumour had not caused compression of the artery or of any structure of the brain. Electroencephalography performed during another tilt test showed no pathological changes. Reduced noradrenaline and adrenaline levels in daily urine collection were the only deviations in laboratory tests, but the consulting endocrinologist excluded correlation with the patient's symptoms. There were no abnormalities in abdominal magnetic resonance imaging. Finally, the patient was recommended to take: etilephrine, midodrine, paroxetine, and fludrocortisone in the morning, and propranolol in the evening. The applied treatment reduced the incidence of symptoms. After 14 months, another syncope occurred, complicated by head trauma, followed by cardiac arrest with asystole. The patient was resuscitated, but was unable to speak or to think clearly. Cranial CT was comparable to the study performed earlier, with no progression of the tumour (Fig. 2). After a month he passed away due to pneumonia. Concomitant treatment of hypotension and hypertension was the difficulty in treating this patient. Medications stimulating the release of noradrenaline, such as tricyclic antidepressants, amphetamine, and monoamine oxidase-A inhibitors are contraindicated in patients with hypertension, as they increase it. The treatment which is now available in autonomic failure is moderately effective. This case illustrates the difficulty in diagnosing and treating patients with OH.

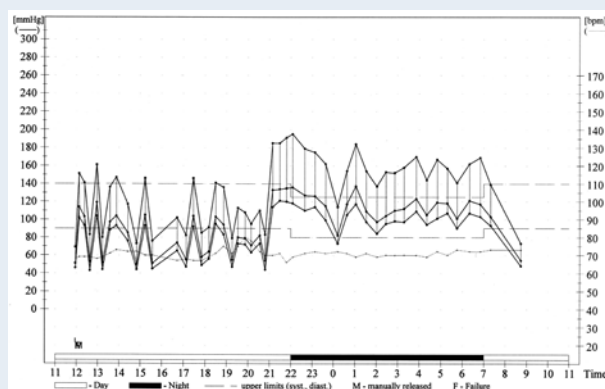


Figure 1. Graphical summary of the 24-h blood pressure monitoring. Paradox-dipper profile. The average blood pressure (aBP) during the entire record — 134/80 mm Hg; day aBP — 117/74 mm Hg; night aBP — 159/101 mm Hg



Figure 2. A cranial computed tomography scan showed an osteolytic tumour in the sphenoid bone; **A.** Examination from 2012; **B.** Examination from 2013

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