

Vena cava superior stenting for rescue treatment of critical stenosis related to progressing cancer disease

Stentowanie żyły głównej górnej jako interwencyjne leczenie krytycznego zwężenia u pacjenta z progresją choroby nowotworowej

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A 63-year-old female with non-small cell lung cancer (planoepitheliale) in IIIA stadium treated with second-line chemotherapy, with a history of small-cell lung cancer treated with radical chemo- and radiotherapy in 2007, and a history of breast cancer operated in 2005 was admitted to Department of Pulmonary Circulation and Thromboembolic Diseases with severe vena cava superior (VCS) syndrome. She complained of two weeks' progression of swelling of the face and neck with mild dysphagia, cough, moderate limitation of movement of the head, blurred vision due to swelling eyeballs, and symptoms of moderate swelling of the brain (headache and dizziness). Computed tomography (CT)-angiography of the chest presented narrowed VCS by surrounding tumour (Fig. 1). The patient was transferred to a cathlab and cavography was performed presenting critical stenosis of the VCS modelled from outside close to the right atrium (Fig. 2). Using a 12 × 60-mm balloon pre-dilatation of the stricture was performed (Fig. 3). A self-expanding 12 mm × 60-mm SMART Control stent was inserted into the VCS with post-dilatation of a 14 × 40-mm balloon. VCS syndrome resolved within 2 h after stenting. Control phlebography confirmed normal bilateral blood flow through brachiocephalic veins and the VCS (Fig. 4). The course of the procedure was uneventful and anticoagulant treatment with low molecular weight heparin was continued. The prognosis in cancer patients with VCS syndrome is very poor and depends on histopathological diagnosis and intensity of clinical symptoms. Percutaneous balloon angioplasty of the VCS with stent implantation is a significantly promising technique, especially in patients with severe symptoms, in whom radiotherapy or chemotherapy cannot reduce the mass of the progressing tumour. Antithrombotic drugs are not effective if the clots are not the main cause of stenosis. The presented patient experienced significant clinical improvement, achieved World Heart Organisation functional class I and was able to continue oncological treatment without any recurrence of VCS syndrome.

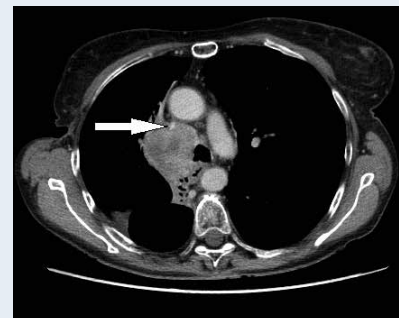


Figure 1. Computed tomography-angiography of the chest presented narrowed vena cava superior by surrounding tumour mass (arrow)



Figure 2. Superior vena cava modelled from the outside by tumour mass (arrow)



Figure 3. Balloon pre-dilatation of the narrowed vessel



Figure 4. Cavography — the final effect of vena cava superior stenting

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