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STUDIUM PRZYPADKU / *CLINICAL VIGNETTE*

Percutaneous patent foramen ovale closure in a patient with inferior vena cava filter

Przezskórne zamknięcie przetrwałego otworu owalnego u pacjentki z filtrem w żyle głównej dolnej

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A 26-year-old female with metastatic ovarian cancer, peritoneal metastases and vessel invasion was referred for patent foramen ovale (PFO) closure. Due to massive pulmonary embolisation the patient had undergone the procedure of the OptEase (Cordis) inferior vena cava (IVC) filter implantation. The primary cancer was surgically excised and the patient qualified for further chemotherapy. Despite the administration of subcutaneous fraxiparine for thromboembolic prophylaxis, the patient subsequently had six transient ischaemic attacks. Baseline transoesophageal echocardiography (TEE) with air contrast revealed PFO with right-to-left shunt during the Valsalva manoeuvre. Therefore, the patient underwent percutaneous PFO closure. The procedure was performed via right transfemoral access, utilising an 8 F sheath to pass by the IVC filter and successfully deliver the 25-mm Amplatzer PFO device (Fig. 1A). During the procedure, no displacement of the filter was observed (Fig. 1B). A two day follow-up TEE revealed no contrast right-to-left atrial shunt. The clinical post-procedural course was uneventful. Percutaneous closure of PFO is currently one of the methods of secondary prevention of cryptogenic cerebral stroke. Routinely used femoral access for PFO closure constitutes a major risk factor comprising filter displacement or entanglement of the guidewire or transporting sheath in a case of indwelling IVC filter. Herein we present a rare case of possible PFO closure through the IVC filter in a patient with a complex medical history which still remains challenging in standard clinical practice. The Amplatzer device was selected for its compatibility with small sheaths, which is of great importance while bypassing the filter.

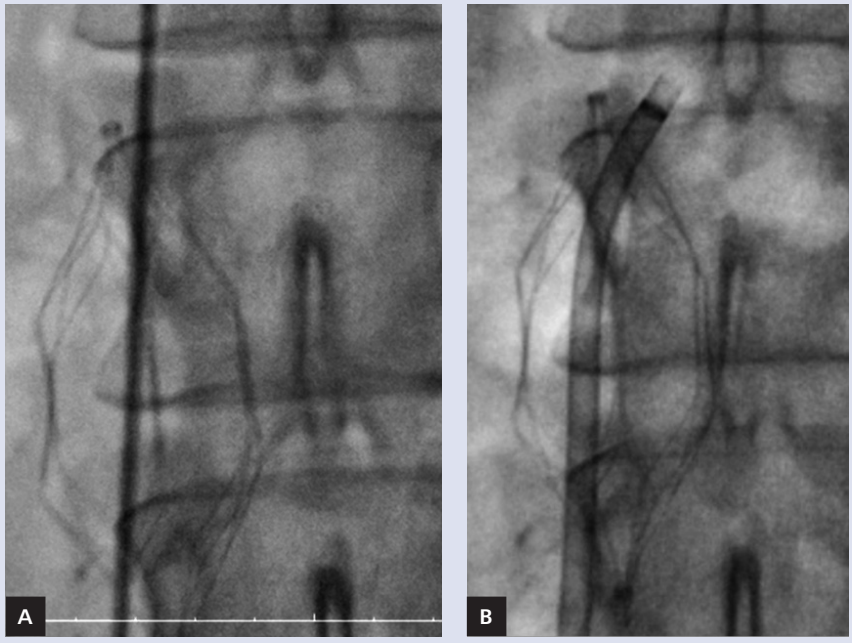

Figure 1. Passing of the filter with a catheter and removing the sheath; **A**. Passing of the filter with a catheter; **B**. Removing the sheath after successful implantation

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