Clinical vignette

Aneurysm of the membranous septum causes pre-syncopes and transient bilateral blindness

Christoph Langer*, Dieter Horstkotte, and Cornelia Piper

Department of Cardiology, Heart Center North Rhine-Westphalia, Ruhr University Bochum, Georgstr. 11, 32545 Bad Oeynhausen, Germany

* Corresponding author. Tel: +49 5731 971258; fax: +49 5731 972194. E-mail address: clanger@hdz-nrw.de

A 33-year-old female presenting with a 3-year history of fatigue, palpitations, and dyspnoea on exertion revealed a 1/6 systolic murmur. ECG demonstrated premature beats, whereas echocardiography (Panel A) identified an aneurysm of the membranous septum (AMS) not considered relevant. A complete AV-block developed, but the implanted two-chamber pacemaker did not bring relief. While walking fast, the patient suffered pre-syncopes and transient bilateral blindness. A cardiac CT scan (Panel B) demonstrated an isolated AMS (3 × 3 × 4 mm) consisting of three pouches free of thrombus and calcifications prolapsing into the right ventricular outflow tract. Heart catheterization (Panel C) confirmed a Type B AMS, resulting in a functional stenosis measuring a gradient of 12 mmHg at rest and in supine position. After complete resection of the aneurysmal sac, the patient has remained asymptomatic so far (24 months).

Pre-syncopes and amaurosis fugax can be caused by different pathologies. AMS are generally regarded as developmental malformations and thought to result from spontaneous partial or complete closure of congenital ventricle septal defect. Mostly associated with other cardiac anomalies, isolated AMS are rare and often asymptomatic.