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Titel des Beitrags:
MRI for detection of anomalous pulmonary venous drainage in patients with sinus venosus atrial septal defects.

Abstract:
Purpose of this survey was to estimate the value of MRI for the assessment of the anatomical and functional features of sinus venosus atrial septal defect (SVD). This prospective study included 13 surgically proven cases of SVD out of 81 subjects submitted to MRI due to inconclusive transthoracic echocardiography (TTE) or suspicion of high intracardiac and/or extracardiac shunt volumes based on echocardiographic findings. MRI examination included cine SSFP sequences, contrast-enhanced 3D gradient-echo (GE) sequences for MR angiography (MRA) and phase-contrast flow-measurements. MRI revealed nine patients with a superior and four with an inferior SVD. Anomalous pulmonary venous drainage (APVD) was observed only in subjects with a superior SVD, and it was right-sided in all cases. All MRI and MRA results for the SVD patients were confirmed intraoperatively. The Correlation coefficient between MR flow measurements and cardiac catheterisation was 0.94 (P< 0.0001). According to MRI the rest of the subjects (n = 68) presented a secundum ASD, whereas in 18% an APVD coexisted. The latter MR outcomes concurred with the cardiac catheterisation (n = 56) and operative (n = 12) results. MRI provides a reliable, non-invasive method for evaluation of SVDs, APVDs and shunt quantification.

Zeitschriftentitel / Abkürzung: