

ポスター | 1-05 画像診断

ポスター

画像 MRI①

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[II-P-032]心血管 MRIを用いたエブスタイン奇形の左心機能における右房 化右室と左室形態の影響についての検討

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Keywords:Ebstein's anomaly, left ventricular failure, cardiovascular MRI

Objective: To investigate whether atrialized right ventricle (ARV) and LV shape impact LV function in Ebstein's anomaly by cardiovascular MRI (CMR).

Methods: We analyzed CMR studies in patients with Ebstein's anomaly for measures of severity, including ARV, functional (FRV) and total right ventricular (TRV) volumes, LV volumes, LV and RV ejection fraction (EF). Also, we analyzed LV wall motion and wall thickening in accordance with the 16-segment model. We related those CMR values to LV failure in Ebstein's anomaly.

Results: Ten patients (mean age 27 +/- 12 years, 80 % female) were included. ARV end-diastolic volume index (EDVi) was 91 +/- 57 ml/m² and TRVEDVi was 232 +/- 167 ml/m². FRVEF was 52 +/- 11 % and TRVEF was 53 +/- 16 %. LVEDVi and LVEF were normal (64 +/- 15 ml/m² and 61 +/- 6 %) but the LV was basally narrowed and modestly dilated apically, and exhibits basal septal hypokinesis with anterior hyperkinesis. ARVEDV and TRVEDV were strongly negatively correlated with LVEDV (r=-0.72 and -0.76), and TRVEDV and TRV end-systolic volume were negatively correlated with LVEF (r=-0.53 and -0.61).

Conclusions: LVEF was affected by atrialized and functional RV volumes. The apparent basal septal dyskinesis observed in most patients. The ventricular interaction was indeed proved, and LV dysfunction as well as right sided volume overload has a negative impact on cardiac outcome in Ebstein's anomaly.