CMR IMAGE WITH LATE GADOLINIUM ENHANCEMENT COMBINED WITH 123I-METAIODOBENZYLGUIANIDINE SCINTIGRAPHY STRONGLY PREDICTS LONG-TERM CLINICAL OUTCOME IN PATIENT WITH DILATED CARDIOMYOPATHY

Poster Contributions
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Background: Both myocardial fibrotic change and sympathetic nervous deterioration are predictors of poor outcome in patient with dilated cardiomyopathy (DCM). Late gadolinium enhancement cardiac magnetic resonance (LGE CMR) can evaluate myocardial fibrosis, whereas 123I-metaiodobenzylguanidine (MIBG) evaluates sympathetic nervous function. We investigated predictive value of combination of two different type examinations for outcomes in DCM.

Methods: One hundred thirty six DCM patients (58.9±15.0 years, 90 males, left ventricular ejection fraction (LVEF) 30.9±7.8 %) were studied. Both LGE CMR and MIBG were performed, then presence or absence of LGE (LGE+/-) and heart/mediastinum ratio in delayed phase (delayed H/M) were investigated. Patients were treated by optimal medical therapy and if indicated, cardiac resynchronization therapy. Then they were followed up (mean 1722±690 days). Cardiac death and rehospitalization due to worsening heart failure were defined as events.

Results: Nineteen patients had presented clinical events. Age and sex were comparable. According to ROC, cut-off of delayed H/M to detect clinical events was 1.7. Among parameters (LVEF, BNP, NYHA, LGE and delayed H/M), LGE+ and delayed H/M<1.7 were significantly associated with events. In combination with LGE and delayed H/M, predictive value was strongest.

Conclusion: Combination of MIBG and CMR, which evaluate different type of cardiac deterioration, can serve as strong predictor of long-term outcomes in DCM.