Prognostic Value of Plasma B-Type Natriuretic Peptide in the Long-Term Follow-up of Patients With Transposition of the Great Arteries With Morphologic Right Systemic Ventricle After Atrial Switch Operation.

Abstract:
B-type natriuretic peptide (BNP) is an established marker for heart failure assessment, but the prognostic quality of BNP after atrial switch operation (ASO) has not yet been elucidated. In 89 patients (median age, 24 years; range, 15-35 years) after ASO, BNP was measured. During a 48-months follow-up we focused on critical cardiac events, defined as decompensation, sudden cardiac death or need for heart transplantation. BNP was considerably lower in 81 patients in functional class (FC) I/II (median, 35 pg/ml; range, 3-586 pg/ml) than in 6 patients in FC III/IV (median, 246 pg/ml; range, 14-1,150 pg/ml, P<0.001). The cut-off was 85 pg/ml (sensitivity, 88%; specificity, 85%). Additionally, estimated event-free-survival was longer after Senning than after Mustard procedure (P<=0.017). There was no significant difference in outcome between patients with simple or complex TGA with regard to occurrence of critical events. BNP is a sensitive and specific prognostic marker for critical cardiac events after ASO. (Circ J 2015; 79: 2677-2681).