

Prognosis of children with Kawasaki Disease and compromised Haemodynamics

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The aim of this study was to assess cardiac features and outcomes of children with severe hemodynamically-compromised Kawasaki Disease (KD).

Material and Methods: Retrospective single-center study of children admitted from 1997 to 2014 in Intensive care unit for hemodynamics failure. Clinical features, cardiac lesions and short and long-term outcomes were analyzed.

Results: Six patients were included in the study, 3 males and 3 females. Median age at admission in ICU was 48 months. Cardiogenic shock was present in 4 cases (66%) and hypovolemic shock in 2 (33%), 5 (83%) had typical KD clinical features and 5 had multivisceral failure (83%) of which 3 neurological complications (encephalitis, meningitis). Left ventricle dysfunction (LV shortening fraction= 20%) was present in the 4 cases with cardiogenic shock, 4 had pericardial effusion and 2 mitral valve regurgitation. Three cases (50%) had transient coronary artery dilations and 2 had coronary arteries aneurysms (33%), i.e. coronary arteries lesions were present in 83% of the cases. Median C-reactive protein was 278mg/l (267 to 305), albuminemia was 21g/l (15 to 33), hemoglobin level was 91g/l (70 to 101) and platelet count was 254.109/l (161 to 745). Mean time from onset of symptoms to IVIG infusion was 4 days (3 to 10days). IVIG resistance occurred in 3 patients (50%) who received second-line steroids therapy. No death occurred. Median hospital stay was 9.5days (5 to 30). Coronary arteries aneurysms persisted in long-term follow-up in 2 patients (33%).

Conclusion: Severe KD in children presents with hemodynamic and cardiogenic shock. Incidence of cardiac lesions is very high although IVIG infusion is not delayed, with higher IVIG resistance than in classic KD. One third of the cases suffer from long-term cardiac sequelae. These results might lead to recommend first-line treatment with IVIG resistant-type therapeutics.