

AEPC-YIA session

AEPC-YIA session (III-AEPCYIA)

Chair: Ina Michel-Behnke (Division of Pediatric Cardiology / Pediatric Heart Center, University Hospital for Children and Adolescent Medicine, Medical University Vienna)

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[III-AEPCYIA-04] Kawasaki disease and the current SARS-CoV-2 pandemic : rare lessons from a cohort of more than 1000 Kawasaki patients in The Netherlands

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キーワード : Kawasaki disease, Multisystem Inflammatory Syndrome In Children, coronary artery aneurysms, COVID-19.

Background and aim: Kawasaki disease (KD) is a pediatric vasculitis with an unknown etiology. The aim of this study was to assess the clinical course, treatment and cardiovascular outcomes in children with KD. The secondary purpose of this study was to make a comparison with the Kawasaki-like disease Multisystem Inflammatory Syndrome in Children (MIS-C), which is triggered by SARS-CoV-2.

Methods: In this observational cohort study, clinical information from KD and MIS-C patients was collected. Data were described and a multivariate analysis was performed to identify risk factors for coronary artery aneurysms (CAA). Clinical characteristics between KD and MIS-C were compared using chi-squared and Mann-Whitney U tests.

Results: 1036 KD patients were included. The male-to-female ratio was 3:2, a majority of the patients were <5 years old (78.3%), treated with a single dose of intravenous immunoglobulin (IVIG) (76.4%) and treated promptly (<10 days) (74.4%). A second dose of IVIG was needed in minority of the patients (23.6%). CAA developed in 18.8% of patients (6.0% giant CAA), of which 30.7% persisted ≥1 year, mostly giant CAA. Of the 62 patients with giant CAA, 10 had myocardial infarctions, 9 required interventions (i.e., PCI and CABG) and there were 3 KD-related deaths. Risk factors (i.e., male, young age, delayed treatment) for CAAs were confirmed. A total of 69 MIS-C patients were included for the comparison. These patients were older than the KD patients ($P < 0.0005$), more often had an incomplete KD presentation ($P < 0.0005$). MIS-C patients mainly presented with acute cardiac dysfunction, with complete recovery after treatment without fibrosis on convalescent MRI.

Conclusions: KD and MIS-C are severe post-infectious inflammatory diseases. Due to the risk of cardiovascular complications, vigilance and prompt treatment are advised to reduce risk of cardiovascular complications.