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## Cardiovascular Injury and clinical features of Multisystem Inflammatory Syndrome in Children (MIS-C) Related to Covid-19 in Vietnam

**Nguyen Phung Nguyen**

University of Medicine and Pharmacy, Vietnam

**Background:** This study aimed to describe the Cardiovascular Injury and clinical features of Multisystem Inflammatory Syndrome in Children (MIS-C) related to Coronavirus Disease 2019 (COVID-19) in Ho Chi Minh City, Vietnam.

**Methods:** This was a retrospective cohort study of children with MIS-C (from September 1, 2021 to February 28, 2022) in Children's Hospital 1, Ho Chi Minh City. Demographics, clinical history, significant underlying conditions, clinical manifestations, laboratory investigations, and medical management were analyzed.

**Results:** A total of 76 patients were included (median age, 5.9 years old, 2 months–16 years). The male/female ratio was 1.6/1. Most patients (75/76) had no previous medical conditions. The mean time from acute severe acute respiratory Syndrome Coronavirus 2 (SARS-CoV-2) infection to symptom onset was 39 days. During an acute SARS-CoV-2 infection, these patients are either asymptomatic or mildly symptomatic. In addition to fever, gastrointestinal symptoms were also prominent, as observed in our study, with 75%, 73.7%, and 72.3% of patients presenting with abdominal pain, vomiting, and loose stools, respectively. The levels of inflammatory markers increased upon admission and returned to normal levels after treatment. Echocardiography revealed decreased myocardial contractility and coronary injury in 16 (21.1%) and 32 (42.1%) patients, respectively. Most cases (72/76) had no fever within 3 days of intravenous immunoglobulin (IVIG) and methylprednisolone treatment. No deaths occurred in this study. The mean duration of hospitalization was 7.2 days.

**Conclusion:** Cardiovascular involvement was observed in approximately 53.9% of the patients. Anti-Inflammatory Treatment with IVIG and methylprednisolone had a favorable short-term outcome. However, long-term follow-up studies on post-discharge MIS-C cases are needed to make appropriate treatment recommendations in the acute phase.

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### Biography

Nguyen Phung Nguyen is a well-respected Physician and Professor of Medicine who has dedicated his career to improving healthcare in Vietnam. He has extensive experience in clinical practice and research, and has been involved in many initiatives aimed at improving the health and wellbeing of the Vietnamese people. He is particularly interested in the prevention and treatment of Infectious Diseases, and has worked tirelessly to develop new treatments and vaccines. He is a well-respected Physician and professor of medicine who has dedicated his career to improving healthcare in Vietnam. He has extensive experience in clinical practice and research, and has been involved in many initiatives aimed at improving the health and wellbeing of the Vietnamese people. He is particularly interested in the prevention and treatment of Infectious Diseases, and has worked tirelessly to develop new treatments and vaccines.

Nguyenphung@ump.edu.vn