P078 MULTI-SYSTEM INFLAMMATORY SYNDROME ASSOCIATED WITH SARS-COV-2 IN CHILDREN: CLINICAL AND THERAPEUTIC CHARACTERISTICS

Nacera Masmi1
1Department of Pharmacy, Faculty of Medicine, University of Oran 1
Ahmed Ben Bella Algeria

Background
The COVID-19 pandemic was associated with the emergence of a new disease resembling the Kawasaki disease (kDa). That was primarily reported in children of western countries strongly affected by SARS-CoV-2. This syndrome was called Pediatric Multi-System Inflammatory Syndrome (PIMS or MIS-C), and has affected thousands of children, adolescents and young adults throughout the world since the alert launched by the National Health Service of the United Kingdom at the end of April 2020. This work is a literature review of data focusing on the clinical and prognostic characteristics of the MIS-C, the links between Covid-19 and MIS-C, and current therapeutic recommendations.

Material and methods
We carried out research of the studies recently published in the electronic bibliographic databases (Google Scholar, PubMed, Science direct, EmConsults, Research Gate, Medline, Cochrane, Trip).

Results
25 studies were selected, involving 3015 MIS-C patients from different countries (France, United Kingdom, Italy, Germany, Spain, Brazil, Mexico, Chile, United States, India, Pakistan, Iran). Fever and gastrointestinal disorders were the most frequent clinical manifestations, followed by cardiovascular and respiratory symptoms. Biological markers of inflammation and SARS-CoV-2 serology were assessed in all studies. Characteristics similar to Kawasaki disease, and toxic shock syndrome were reported in all studies. Complications such as coronary artery aneurysm, cardiac insufficiency, renal insufficiency, respiratory distress were noted as well as a significant rate of admission to intensive care units. Finally, the mortality rate was low in the majority of studies. The treatment adopted in the majority of the studies was an association of intravenous immunoglobulins and corticosteroids.

Conclusion
Although the fact that the exact pathogenesis of MIS-C remains unknown, post-infectious immune deregulation induced by the SARS-CoV-2 virus appears to be the trigger of MIS-C. MIS-C has been described as a new and serious disease entity with multi-organ involvement and a wide range of signs ranging from fever and gastrointestinal symptoms to myocardial damage, shock, and the development of coronary artery aneurysms.

Keywords: COVID-19, Multi-System Inflammatory Syndrome (MIS-C), Kawasaki Disease (kDa), Child