

## C2

### **Title: KIDNEY INVOLVMENT IN MULTISYSTEM INFLAMMATORY SYNDROME-C: A PEDIATRIC NEPHROLOGIST'S PERSPECTIVE**

**Author(s): Rama Safadi, Rupesh Raina**

**Affiliation:** Bio-Med Science Academy. Internal Medicine, Pediatric Nephrology, Akron Children's Hospital

Coronavirus disease (COVID-19) has become a global pandemic. There is sufficient data in the adult population with underlying kidney disease, showing worse outcomes than those without it. There is a lack of evidence relating to underlying conditions with severe illness in children. Methods: A literature search was performed between 1946 and 2020 to include studies related to MIS-C and Acute Kidney Injury. A standardized data collection form was used to extract the following information from each article: the first author's last name, study type, location, number of MIS-C patients in the study, AKI incidence, and use of renal replacement therapy. All statistical analyses were performed using Excel and graphPad PRISM. Results: A total of 1311 MIS-C patients [18 studies] were analyzed, of which 731 (56%) were males, and 513 (40%) were females. The mean age of the study was  $9 \pm 1.21$  years [18 studies]. The incidence of AKI was 239 (19.48%) [95% Confidence Interval (CI): -3% to 42%; 16 studies]. There was no significant difference found between male and female sex getting AKI affected with MIS-C. Based on 4 studies, 5/116 (4%) population with AKI received KRT. Conclusion: Although there has been an increasing number of published data, the overall population-specific incidence of MIS-C is still unknown. Post-viral immunological reaction to COVID-19 remains the best-implicated theory behind this disease's pathogenesis. A better understanding of the kidney physiology in COVID-19 and treatment available for children with renal dysfunction and MIS-C shall help better care of this subset of children.