

Clinical, echocardiographic and electrocardiographic manifestations of COVID-19 multisystem inflammatory syndrome in children in the Dominican Republic

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Background

- The COVID-19 pandemic has spread globally and millions of infections have occurred.
- As cases mount, atypical manifestations of COVID-19 and post-infectious complications such as multisystem inflammatory syndrome in children (MIS-C) become more likely. MIS-C is a life threatening post-infectious complication of COVID-19.
- There is a paucity of data of MIS-C in the Dominican Republic (DR).
- We seek to understand the clinical manifestations of MISC-C in the DR.

Methods

- This is a retrospective review of cases admitted to a pediatric hospital in the Dominican Republic from March 2020 to December 2021.
- Patients with clinical findings and a diagnosis of MIS-C were included. Echocardiographic (Echo) and electrocardiographic (ECG) changes were reviewed.

Results

- A total of 16 patients were included in our study, of which 68.75 were male. Ages were 12.5% <1 years old, 12.5% between 1-4, 62.5% 5-12 and 12.5% over 12.
- Fever and rash were the most common clinical findings (Figure 1), while 69% had a new abnormality on echo and 50% had new ECG abnormalities as listed in Figure 2
- Echocardiographic findings are listed in Figure 3.









Conclusions

- The clinical manifestation of MIS-C are primarily fever, conjunctivitis, rash and hypotension. Because these findings can be non-specific, a high level of suspicion is needed.
- With over two thirds of patients with MIS-C showing echocardiographic changes and more than 50% showing ECG changes, these two tests can add significant diagnostic value in the right clinical setting.
- Clinicians should consider early echocardiography and ECG in patients with possible or suspected MIS-C.





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