BACKGROUND

- MIS-C is a novel and rare complication of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) that causes coronavirus disease of 2019 (COVID-19)
- Typically presents as a hyperinflammatory state resulting in fevers and multisystem involvement, including cardiac dysfunction, mucocutaneous/villous involvement, and shock and is thought to be caused by post-infectious immune dysregulation
- Shares signs and symptoms with other infectious immune dysregulation syndromes

OBJECTIVE

To compare the symptoms and performance of laboratory tests in patients treated for MIS-C (probable) with patients evaluated but not treated for MIS-C (suspected)

METHODS

- Retrospective cohort study of initial labs and presenting symptoms for patients evaluated for MIS-C in a large pediatric center
- Patients were identified from a cohort aged <22 years who were evaluated for MIS-C by consult to Infectious Diseases service and/or by laboratory studies (BNP and ferritin ordered in same encounter)
- Patients without clinical concern for MIS-C by consult to Infectious Diseases center

COHORT

- Analysis done using two sample Wilcoxon rank sum and chi-squared tests

PRESENTING SYMPTOMS

- Proportions and medians compared with two-sample t-test and two-tailed Wilcoxon rank sum test

CONCLUSIONS

- Laboratory workup for suspected MIS-C can be extensive
- Patients treated for MIS-C were less likely to have:
  - Hypotension, conjunctivitis, and respiratory symptoms
  - Left ventricular dysfunction on echocardiogram
  - Lower lymphocyte and platelet counts
  - Higher BNP, NT-pro-BNP, CRP, troponin
- Targeting the above laboratory studies may allow for a more cost effective approach to evaluation for MIS-C.

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