

Rate of thrombosis in children and adolescents hospitalized with COVID-19 or MIS-C.

Whitworth HB, et al. Blood. 2021 Apr 25

Background: Coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) is associated with thrombotic complications in adults. Incidence of COVID-19 related thrombosis in children and adolescents is unclear.

Purpose: To determine the incidence of thrombosis in children hospitalized with COVID-19 or MIS-C and to evaluate associated risk factors.

Methodology:

- Multicenter retrospective cohort study.
- Children were classified into one of three groups for analysis: COVID-19, MIS-C, or asymptomatic SARS-CoV-2.

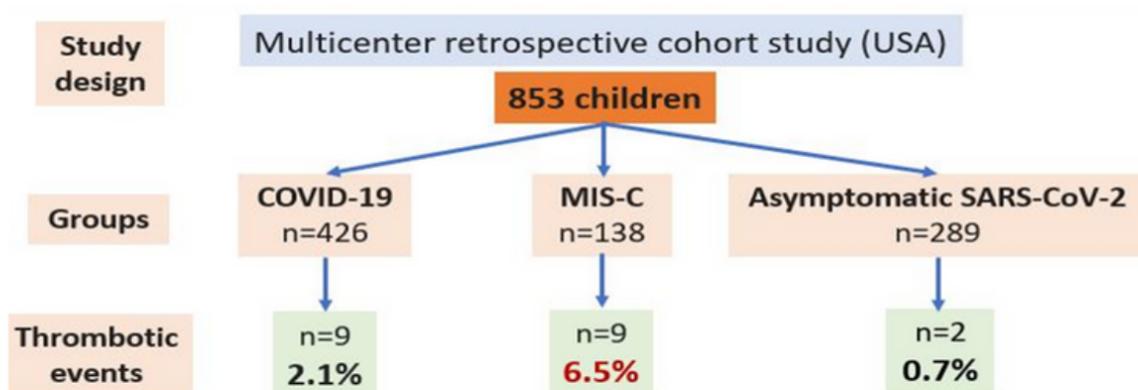
ACADEMIC P.E.A.R.L.S

Pediatric Evidence And Research Learning Snippet



Thrombosis in hospitalized children with COVID-19 or MIS-C

Results:



- Majority of thrombotic events (89%) occurred in ≥ 12 years
- Highest rate of thrombosis: Children > 12 years with MIS-C 19% (9/48)
- Multivariable analysis: Factors significantly associated with thrombosis: age ≥ 12 years, cancer, central venous catheter, and MIS-C
- Hospital mortality:-
- Patients with COVID-19 or MIS-C 2.3% (13/564)
- Patients with thrombotic events 28% (5/18)

Conclusion:

- Thrombotic complications are not uncommon in hospitalized children with MIS-C and COVID-19.
- Findings may help in formulating pediatric thromboprophylaxis strategies.

EXPERT COMMENT

“Thrombotic complications may be seen in 1-6% of hospitalized children with COVID-19 and MIS-C. Adolescents, severe or critical disease, and underlying risk-factor for thrombosis may be considered for prophylactic anticoagulation. Uniform guidelines are needed in this field.”

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With warm regards,

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Reference

Whitworth HB, Sartain SE, Kumar R, Armstrong K, Ballester L, Betensky M, Cohen C, Diaz R, Diorio C, Goldenberg NA, Jaffray J, Keegan J, Malone K, Randolph A, Rifkin-Zenenberg S, Leung WS, Sochet AA, Srivaths L, Zia A, Raffini L. Rate of thrombosis in children and adolescents hospitalized with COVID-19 or MIS-C. Blood. 2021 Apr 25;blood.2020010218. doi: 10.1182/blood.2020010218.