

the adult population with or without preceded COVID-19 infection. Almost all of them were successfully treated by immunomodulatory therapy,¹⁻³ except one fatal MIS-A case following SARS-CoV-2 vaccination in a patient with prior COVID-19 infection.⁴

To our knowledge, this is the first informed case of a child developing MIS-C after receiving 2 doses of different mRNA COVID-19 vaccinations fulfilling the definitive case definition of MIS-C following SARS-CoV-2 vaccination.⁵ A nucleocapsid antibody test was not performed in this patient so a prior history of asymptomatic COVID-19 infection cannot be excluded and hence this case cannot be attributed to vaccination or MIS-V. This case emphasizes the need to exclude prior SARS-2-CoV infection by testing for nucleocapsid antibody which is induced only by infection and not vaccination.

Cases of MIS-C should be cautiously interpreted, as misattribution of such cases to vaccination can unjustifiably increase vaccine hesitancy.

REFERENCES

1. Nune A, Iyengar KP, Goddard C, et al. Multisystem inflammatory syndrome in an adult following the SARS-CoV-2 vaccine (MIS-V). *BMJ Case Rep.* 2021;14:e243888.
2. Salzman MB, Huang CW, O'Brien CM, et al. Multisystem inflammatory syndrome after SARS-CoV-2 infection and COVID-19 vaccination. *Emerg Infect Dis.* 2021;27:1944–1948.
3. Chai Q, Nygaard U, Schmidt RC, et al. Multisystem inflammatory syndrome in a male adolescent after his second Pfizer-BioNTech COVID-19 vaccine [published online ahead of print October 7, 2021]. *Acta Paediatr.* doi:10.1111/apa.16141.
4. Grome HN, Threlkeld M, Threlkeld S, et al. Fatal multisystem inflammatory syndrome in adult after SARS-CoV-2 natural infection and COVID-19 vaccination. *Emerg Infect Dis.* 2021;27:2914–2918.
5. Vogel TP, Top KA, Karatzios C, et al. Multisystem inflammatory syndrome in children and adults (MIS-C/A): case definition & guidelines for data collection, analysis, and presentation of immunization safety data. *Vaccine.* 2021;39:3037–3049.