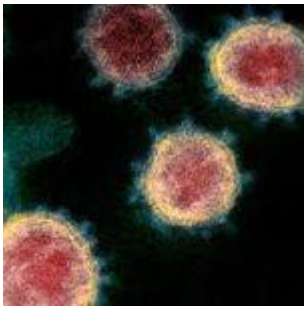
SARS-CoV-2 infection in young children and Kawasaki-like disease.



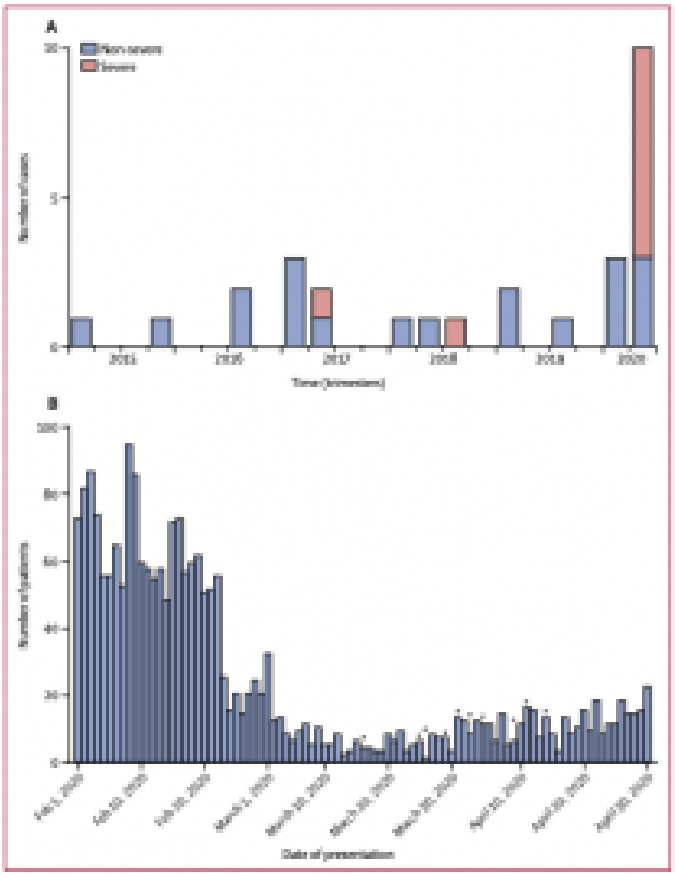


Figure: Incidence of Kawasaki disease in the study period and in the past 5 years
(A) Frequency of Kawasaki disease at the paediatric emergency department of Hospital Papa Giovanni XXIII of Bergamo, Italy, in the past 5 years, by case severity. (B) Number of patients presenting to the paediatric emergency department during the severe acute respiratory syndrome coronavirus 2 epidemic, and date of presentation of ten patients with Kawasaki-like disease (indicated by asterisks).

Kawasaki disease is an acute self-limiting vasculitis with specific predilection for the coronary arteries that affects previously healthy young infants and children. Since this was first reported half a century ago in Japan, the cause of this condition remains unknown. The most accepted hypothesis supports an aberrant response of the immune system to one or more unidentified pathogens in genetically predisposed subjects. An infectious trigger, however, has not been identified. Look at our case study to find out more about the pathogenesis of Kawasaki disease. Investigators in the Bergamo province of northern Italy found a 30-fold increased incidence of Kawasaki disease and they report in The Lancet that children diagnosed after the SARS-CoV-2 epidemic had a higher rate of cardiac involvement and features of

Macrophage Activation Syndrome (MAS). They concluded that young children infected with SARS-CoV-2, rather than develop respiratory illness, progress to a severe form of Kawasaki-like disease and require adjunctive steroid treatment.

Journal Article: Verdoni et al., 2020. An outbreak of severe Kawasaki-like disease at the Italian epicentre of the SARS-CoV-2 epidemic: an observational cohort study. The Lancet

Summary by Clive Gray