overtreat rather than undertreat to prevent lifelong complications due to coronary aneurysms.

The definition of recurrent KD would essentially mean a recurrence after documented remission of the first episode of KD (clinically, echocardiography and laboratory). It goes without saying that this period would be at least for about 4 to 6 weeks.

This is a position paper on KD providing diagnostic and therapeutic guidelines for practising pediatricians across the country. We did not intend to highlight or analyze Indian data. Moreover, data on KD in India is predominantly emerging from few centres and not representative of the scenario in the whole country.

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Inclusion of Multisystem Inflammatory Syndrome in Children and Adolescents Temporally Related to COVID -19 in the Differential Diagnosis of Kawasaki Disease

It was an interesting and informative read to go through the IAP position paper on Kawasaki disease (KD) published recently [1]. It was indeed necessary to have a nation-wide consensus, which is suitable for India where the distribution of health resources is unequal and constrained. KD has become one of the leading causes of acquired heart disease in many developed countries of the world [1]. With almost a year of coronavirus disease 19 (COVID-19) pandemic, a new hyper-inflammatory syndrome affecting children has been observed, and variously labeled as Multisystem inflammatory syndrome in children (MIS-C) associated with COVID-19 or Pediatric inflammatory multisystem syndrome-temporally associated with SARS-CoV-2 (PIMS-TS) [2,3]. This condition has clinical features which overlap with other inflammatory diseases in childhood like Kawasaki disease (KD) and toxic shock syndrome (TSS) [2].

The position paper [1] mentions various differential diagnosis of KD, but does not mention PIMS-TS or MIS-C. It is important that this entity should be considered in the differential diagnosis of KD, as the clinical presentation is very much overlapping, though the underlying mechanism for hyperinflammation is different. In KD inflammation of the coronary arteries is due to IL-1, the myocardial dysfunction and higher severity of the 2019-nCoV infection is predominantly driven by IL-6 and IL-10 in MIS-C [4]. Three different phenotypes of hyperinflammation in children has been speculated as classic KD, PIMS-TS and macrophage activation syndrome [4]. Though IVIG and steroids are the mainstay of therapy in these conditions and aspirin also important in KD, the prognosis and long term follow up are different. Hence the authors would like to suggest that this evolving inflammatory disease should be included in the position paper as one of the differentials for KD.

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REFERENCES

1. Shenoy B, Singh S, Ahmed MZ, Pal P, Balan S, Vishwanthan V. Indian Academy of Pediatrics Position Paper on Kawasaki Disease. Indian Pediatr. 2020;57: 1040-48.
2. Royal College of Pediatrics and Child Health. Guidance–Pediatric multisystem inflammatory syndrome temporally associated with COVID-19, 2020. Accessed December 02, 2020. Available from: *https://www.rcpch.ac.uk/resources/guidance-pediatric-multi system-inflammatory-syndrome-temporally-associated covid-19*
3. Bhat CS, Gupta L, Balasubramanians, Singh S, Ramanan AV. Hyperinflammatory syndrome in children associate with COVID-19: Need for awareness. Indian Pediatr. 2020;57:929-35.
4. Shulman ST. Pediatric coronavirus disease-2019-associated multisystem inflammatory syndrome. J Pediatric Infect Dis. 2020;9:285-6.

AUTHORS' REPLY

We thank the authors for raising this pertinent point. We are in total agreement that MISC (PIMS) is one of the differential diagnoses of Kawasaki disease. The draft of this article; however, was prepared prior to the onset of COVID-19 pandemic, and thus it was missed out in the list of differential diagnosis of KD in the consensus statement. The committee has modified the differential diagnosis as follows:

Differential Diagnosis of Kawasaki Disease

1. Infections – Bacterial (streptococcal, leptospirosis, rickettsia), Viral (measles, adenovirus, Epstein Barr virus).
2. Toxin related – Staphylococcal scalded skin syndrome, toxic epidermal necrolysis
3. Inflammatory – Systemic juvenile idiopathic arthritis
4. Drug hypersensitivity – Steven-Johnson syndrome, drug reaction with eosinophilia and systemic symptoms (DRESS), mercury hypersensitivity.
5. Multisystem inflammatory disease of childhood temporally related to COVID-19 (MISC-C): A condition recognized and described during the COVID-19 pandemic. This occurs largely in children, usually above 5 years of age, as a short term illness with high grade fever and often with shock with multisystem inflammation. One of the phenotypes can