



## Cardiac Affection in a Young Girl with Post Covid-19 Kawasaki Like Syndrome

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*To the Editor:* Covid-19 affection in children has a wide spectrum varying from mild respiratory symptoms to severe shock like presentations. We report a young girl who developed Kawasaki Disease (KD) like syndrome with hypotension.

An eight-year-old girl presented with fever and headache, erythematous, non-blanching rashes over her hands and trunk; along with non-bilious vomiting, epigastric pain and loose stools for 3 d. On examination she was toxic, tachycardic with bilateral non-purulent conjunctivitis. Her total leukocyte count was 10,630/dl (90% Neutrophils), hemoglobin 11.7 g/dl, platelets 156,000/cmm. Inflammatory biomarkers were significantly elevated; ESR 110/h, C-reactive protein (CRP) 362 mg/L, ferritin 980 ng/ml and procalcitonin 9.63 ng/dl. Chest radiograph was unremarkable. Liver and renal functions were normal but serum sodium was low (125 meq/L). Common causes of febrile toxic children were excluded. Considering persistent tachycardia

even when afebrile, an underlying myocarditis was suspected. Electrocardiogram showed sinus tachycardia, NT Pro BNP was 13,343 ng/L, d-Dimer 5605 ng/ml. Echocardiogram showed 45% ejection fraction, left coronary artery was dilated (Z-score 2.5) (Fig. 1); and was provisionally diagnosed as post Covid hyperinflammatory syndrome (PIMS). She developed hypotension, was initiated on Adrenaline infusion along with intravenous immunoglobulin (IVIG) at 2 g/kg plus low dose aspirin and was afebrile within 12 h, tachycardia subsided, BP improved and inotropes were weaned off. Covid-19 RT PCR performed by ICMR approved kits (ICMR registration number DLPLL001) was negative but antibody test from Thyrocare Kolkata (by Omega diagnostics kit using ELISA) was positive (IgG 2.8 and total antibody 29.3). Echocardiogram after 72 h showed 60% ejection fraction but the coronary artery remained dilated. She was discharged on low dose aspirin with advice for follow-up echocardiography after 15 d.

Post Covid-19 Italian pandemic showed a surge of KD [1, 2]. Atypical presentation was seen in half with coronary affection in approximately 20%, with very high NT pro BNP in cases with cardiac dysfunction as in our case. Majority showed a positive response to timely administration of IVIG with addition of steroids in cases of inadequate improvement.

Since the first report in an infant [3], globally reports are surfacing with few from India [4, 5]. High index of suspicion of PIMS in a sick child with multi system affection can help in appropriate treatment.

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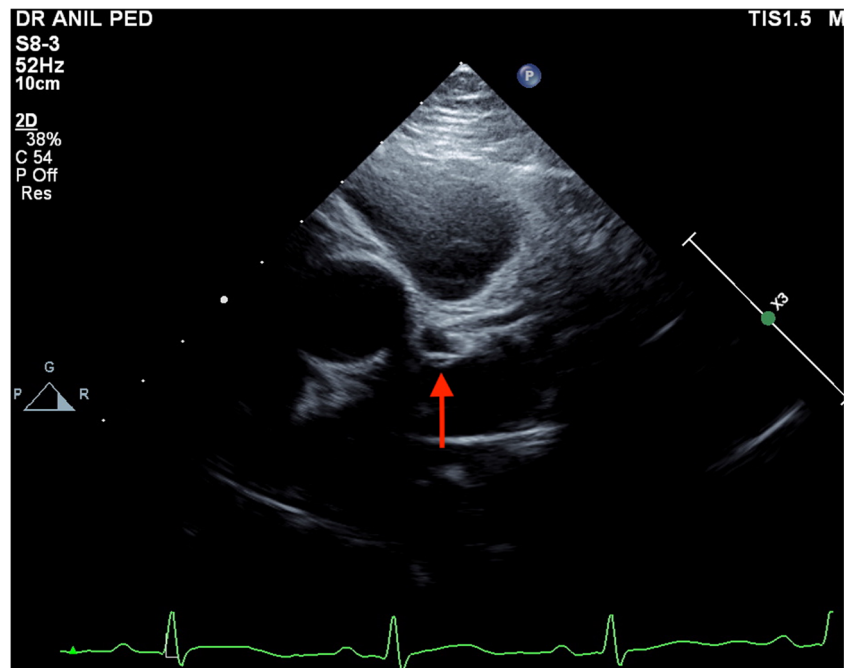
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**Fig. 1** Echocardiogram with parasternal short axis view showing dilated left main coronary artery



## Compliance with Ethical Standards

**Conflict of Interest** None.

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