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SCIENTIFIC LETTER

Cardiac Outcomes in a Cohort of Children with MIS-C

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To the Editor: We aimed to study cardiac outcomes of children with Multisystem inflammatory syndrome (MIS-C) at our centre. We included all children diagnosed with MIS-C at our centre in 2020-2021. The diagnosis and treatment was as per standard guidelines [1]. All patients underwent ECHO at baseline, 48-72 h, 2 wk, 4-6 wk and if abnormal, every 3-6 mo. The patients were followed up till December 2022.

Twenty-seven patients were diagnosed with MIS-C (10 in 2020 and 17 in 2021) with ages between 1-17 y (mean 7 y). Fifteen had a Kawasaki disease phenotype while 12 had a toxic shock phenotype. Nineteen patients received intravenous immunoglobulin (IVIG) and steroids and eight only steroids. The baseline ECHO was abnormal in 15 (55%) patients. The ECHO abnormalities included reduced ejection fraction (REF) in 10, coronary artery dilatation (Z score >2) in 7 and both in 3 patients. The lowest EF was 35% and Z score ranged from 2-2.5. All children survived and all were followed up till December 2022. The REF function normalized at 2 wk in 5 (50%) and at 3, 6, 12 and 18 mo in 1 each. Only 1 patient had low voltage QRS complex at 18 mo. The coronary artery dilatation resolved by 2 wk in 4 patients and by 6 wk, 3 and 12 mo in 1 each.

The incidence of baseline cardiac abnormalities in our cohort (55%) is similar to that reported in a recent systematic review [2]. The findings of our study are similar to other cohorts which have reported normalization of ECHO abnormalities by 6 mo in most patients [3]. However, some studies have reported residual abnormalities in global longitudinal strain (GLS) and cardiac MRI in 20-50% of patients at 6 mo follow up [4]. The long term consequences of these findings remains to be seen.

Declarations

Conflict of Interest None.

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