

Title: Utilization of Clinical Criteria and Laboratory Investigations to Identify High Risk Children for Coronary Involvement in Kawasaki Disease Presenting to Lady Ridgeway Hospital, Colombo, Sri Lanka.

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Kawasaki disease is an acute medium and small vessel vasculitis, which has a predilection for coronary arteries. Coronary artery involvement can vary from mild ectasia occurring nearly 40% to giant coronary artery aneurysms. Hence, we sought to determine a correlation between selected clinical and laboratory criteria in order to predict high risk children with Kawasaki disease for coronary involvement in order to optimise the initial management and follow up.

Serial analysis of Clinical, biochemical and echocardiographic parameters of 101 patients with diagnosed Kawasaki disease within the first 10 days of the illness and followed them up paying special attention to coronary artery dilatation according to coronary artery standard deviation charts and visual assessment until 12 weeks of the disease for 15 months at the National Paediatric Cardiology unit, Colombo Sri Lanka. Maximum recorded internal diameter of the coronaries was considered for the analysis during the follow up. Thereafter, analysis had been performed to identify coronary artery risk predictors with Pearson chi square test and odds ratio.

Mean age of the sample was 44months (±36.8 months) , 62(61.4%) were males and 42(41.6%) patients had coronary involvement (Coronary artery diameter >2 SD adjusted to the Body Surface Area/ visual dilatation to Coronary artery aneurysm formation. All children were treated with at least a single dose of intravenous immunoglobulin during the acute stage.

Age between 7 months to 60 months, fever more than 102^0F, CRP more than 100 mg/L and increased coronary echogenicity within first 10 days of the illness showed significant association with coronary involvement. However, duration of fever, platelet count, AST (Aspartate aminotransferase), ALT (Alanine aminotransferase), Serum bilirubin and Serum sodium or ESR did not demonstrate statistically significant association with coronary dilatation or aneurysm formation in Sri Lankan sample, although utilised in standard risk stratification scores. Also, diagnosis of complete Kawasaki disease, hypoalbuminemia and hyper echogenic coronaries found to be important predictors of coronary aneurysms, which amount to a significant morbidity and mortality. Hence, In the Sri Lankan centre, Age between 7 months to 60 months, fever more than 102^0 F, CRP more than 100mg/dl, increased coronary echogenicity, hypoalbuminemia and diagnosis of complete Kawasaki disease during early stage of Kawasaki disease demonstrated high predictive utility for the development of coronary pathology.

Biography

Dr Thushara Rodrigo has completed his primary medical degree (MBBS) from Faculty of Medicine University of Peradeniya, Sri Lanka in 2011 with a second class honors. He completed his post graduate diploma in child health with a Gold Medal awarded by Sri Lanka College of Paediatricians in 2014 and MD in paediatrics in 2017 from University of Colombo, Sri Lanka. Dr Rodrigo had worked as a Senior Registrar in Paediatric Cardiology in Lady Ridgeway Hospital from 2017 to

2019 july and recently started working as a Clinical Fellow in Paediatric Cardiology in Great Ormond Street Hospital NHS trust London. He has 10 publications both international and mainly at national level.

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