

## Thrombocytopenia on admission in children with Kawasaki disease among 57 centers in Latin America: a prospective multinational multicenter study of the REKAMLATINA Network

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### Background

- Although paediatricians are more familiar with thrombocytosis and its importance in KD, early thrombocytopenia can occur and is considered a risk factor for coronary artery lesions (CALs) and acute myocardial infarction (AMI).
- We describe the epidemiology, clinical aspects, CALs, and outcomes of KD patients (pts) with thrombocytopenia on admission among centers from the largest multinational multicenter KD network (REKAMLATINA).

### Methods

- Ongoing prospective descriptive multicenter study of pts with a hospital discharge diagnosis of KD among 57 of the most important pediatric/general referral hospitals in 20 LA countries.
- Period: June-1-2014 to December-31-2016.
- We included children in whom an admission complete blood count (CBC) test showed thrombocytopenia (platelets  $<150,000/\text{mm}^3$ ).

### Results

- Among 718 eligible KD pts, 697 (97.1%) had an admission CBC taken, of which 24 (3.4%) showed thrombocytopenia.
- Mean age at admission was 43 (8-92) months. 13 (54.1%) were male. Mean length of hospitalization was 7.2 (4-22) days. Mean days of fever at admission were 6 (4-12) days; 33.3% pts had other non-KD admission diagnosis.
- Mean platelet count was 99,125 (60,000-146,000/ $\text{mm}^3$ ). Baseline echocardiogram was performed in all pts, of which  $>1$  abnormality was documented in 7 (29.2%) pts: pericardial effusion, 4 (16.7%) pts; CALs (dilatations and/or aneurysms), 2 (8.3%) pts; and echogenic vascular walls, 1 (4.2%) pt.
- IVIG was given in 19 (79.2%) pts: 1 dose, 15 (62.5%); 2 doses, 3 (12.5%) and 3 doses, 1 (4.2%) pts. Aspirin and steroids were given in 24 (100%) and 6 (25%) pts, respectively. Incomplete/atypical KD was diagnosed in 31.8% pts. No acute bleeding episodes, AMIs or deaths occurred.

### Discussion

- Some hypothesis for thrombocytopenia in acute KD include coagulation-mediated platelet consumption, DIC, increased platelet destruction by immune and non-immune mechanisms and less likely, idiopathic thrombocytopenic purpura during the course of KD.
- Compared with other few series analyzing thrombocytopenia on admission among KD pts, our rate of CALs was lower but the overall rate of cardiac abnormalities was considerable.
- Although we describe a small number of pts, this is the largest prospective multinational study involving so many centers in which this issue has been analyzed.

### Conclusions

- KD should be included in the differential diagnosis of children with fever, rash, and thrombocytopenia.
- Thrombocytopenia should be considered an alert to the clinician taking care of children with KD.

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