KAWASAKI DISEASE AND H1N1 INFLUENZA A VIRUS: A CASE REPORT.

Alfonso Ortigado, Arántzazu Olloqui, M. Jesús García Mazario, M. Eliana Rubio, Ester Cid, José M. Jiménez Bustos.
Department of Paediatrics, University Guadalajara Hospital.
Faculty of Medicine, University of Alcala, Guadalajara, Spain.

INTRODUCTION:
Kawasaki disease (KD) is an acute vasculitis of childhood that predominantly affects the coronary arteries. KD is the most common acquired heart disease in children in developed countries. The etiology of KD remains unknown, although an infectious agent is strongly suspected. In April 2009, a novel H1N1 influenza A virus was identified with a widespread community transmission, the so-called pandemic H1N1/09 virus.

PURPOSE:
We report a case of KD and H1N1 influenza A infection not described previously in the literature.

MATERIAL AND METHODS:
In October 2009, a 11-month-old boy (weight 7,480 kg, body surface area 0.37 m²) was admitted to our hospital due to fever for 5 days (39-39.5°C). His medical history was insignificant, no vaccine recently. On admission, the physical examination revealed polymorphous exanthema, bilateral non-exudative conjuntival injection, fissured red lips, and a strawberry tongue. Laboratory findings: leukocitosis (18.720/mm³), anemia (hemoglobin 10.0 g/dl, hematocrit 29.7%), platelet count 366,000/mm³, C-reactive protein 225.7 mg/L, erythrocyte sedimentation rate 74 mm/hr, albumin 29.7 g/L, triglycerides 172 mg/dl, cholesterol 158 mg/dl, low density lipoproteins 105 mg/dl, high density lipoproteins 19 mg/dl, serum sodium 135 mEq/L. Other laboratory parameters were in normal range. The chest X-ray, electrocardiogram and serum cardiac troponin I were normal. Cultures (blood, urine, pharynx) were normal. Viral studies were negative, except for influenza A (H1N1), performed by the rapid test and confirmed by polymerase chain reaction (PCR). On the ninth day, the platelet count rised (655,000/mm³), the echocardiography showed perivascular brightness in the coronary arteries, and the internal diameter of the proximal segment of left main coronary artery was 3.3mm (> 1.5 times that of the adjacent segment and Z-score > 2 SD for size). The diagnosis of incomplete KD was made and the patient was treated with intravenous immune globulin (IVIG), 2g/kg in a single infusion, together with aspirin 3mg/kg per day (we did not use high-dose aspirin). Fever disappeared and 2 weeks later there was a desquamation of fingers and toes. Coronary artery ectasia resolved by 8 weeks after disease onset. However, follow-up studies are recommended because of possible long-term endothelial dysfunction (Risk level II, AHA guidelines: Pediatrics 2004;114:1708-1733. Circulation 2004;110:2747-2771)

CONCLUSIONS:
We report a case of incomplete KD and H1N1 influenza A virus, this relationship remains unknown by now, but we consider it interesting because of epidemiologic reasons (pandemic virus) and clinic management (risk of Reye syndrome with high-dose aspirin and influenza A infection).