Letter to the Editor

Kawasaki disease in a two-month-old infant

Ana Pilar Nso Roca[1], Francisco Javier Aracil Santos[2], Fernando del Castillo Martín[2], Luis García Guereta[3]

[1]Department of Pediatrics, Hospital de Torrevieja, Alicante, and Departments of [2]Infectious Diseases and [3]Pediatric Cardiology, Hospital La Paz, Madrid, Spain

To the Editor,

Kawasaki disease (KD) is a generalized vasculitis of unknown etiology. It is the leading cause of acquired cardiovascular disease in children. Its incidence is higher in some Asian ethnicities[1]. There is no specific diagnostic test available, and diagnosis depends upon a combination of clinical and analytical criteria[2]. Children younger than one year of age have a higher incidence of incomplete presentations[3,4] and cardiovascular complications[5,6].

We present herein a case of KD in a 10-week-old infant girl of Chinese descent, born in Spain. The ancestors were not relevant. She began to have intermittent fever (up to 39°C), irritability and bilateral conjunctival injection without exudates. On day 3, she developed a diffuse erythematous rash affecting the palms, and soles and a consultation was made at a pediatric emergencies service. A viral disease was suspected and treatment with acetaminophen was indicated.

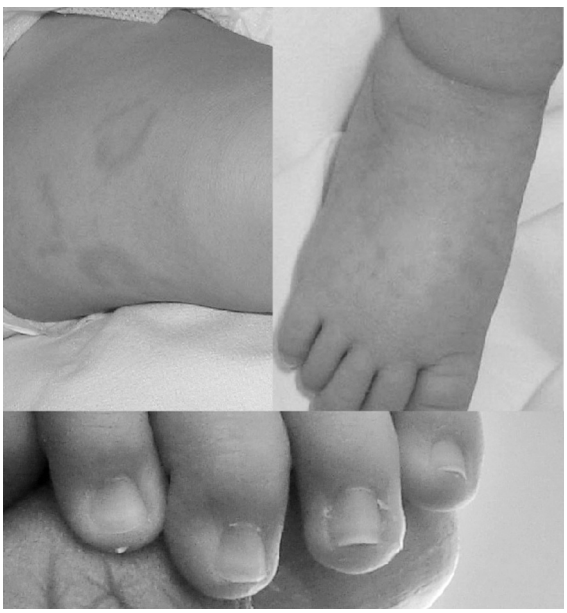

Fig 1. Rash on the 8th day of fever; fingertip desquamation on the 14th day.

The patient arrived at our hospital on day 6 of fever. Physical examination revealed axillary temperature of 38.5°C, irritability, redness of the lips, conjunctival injection, and diffuse rash. The rash was erythematous, macular and sometimes urticarial. Her palms and soles were erythematous, without edema. Laboratory findings showed hemoglobin 9.6 g/dl (normal: 9.5-13.5 g/dl); hematocrit 28% (normal: 29-41%); white blood cells (WBC) 15900/µl (neutrophils 63%; bands 12%; lymphocytes 17%; monocytes 4%; eosinophils 4%); platelets 433,000/µl (normal: 150,000-450,000/µl); and C-reactive protein (CRP) 313 mg/L (normal: <5 mg/L). Cerebrospinal fluid (CSF) glucose was 67 mg/dl (normal: 40-80 mg/dl); protein 42 mg/dl (normal: <40 mg/dl); and leukocytes 10/mm^3 (normal: 0-10/mm^3). Electrolytes, blood urea nitrogen (BUN), creatinine, transaminases, and urinary sediment were normal. Cultures of CSF, blood, urine, and stool were negative. IgM antibodies to measles and Epstein-Barr virus were negative. Rash and lip erythema ameliorated after the 6th day (Fig. 1). Intravenous cefotaxime was started at admission, but fever and irritability persisted.

On day 8, treatment with intravenous immunoglobulin (2 g/kg) and aspirin (80 mg/kg/day) was added. Laboratory findings before treatment were as follows: hemoglobin 9.2 g/dl; WBC 15800/µl (neutrophils 59%; lymphocytes 32%; monocytes 3%; eosinophils 6%); platelets 263,000/µl (with aggregates); CRP 167 mg/L; and albumin 2.2 g/dl (normal: 4-5 g/dl).

Electrocardiogram and echocardiography were normal. Fever and rash vanished during gamma globulin infusion. On day 14, the patient showed a slight desquamation on fingertips (Fig. 1), trunk and limbs. Thrombocytosis reached 1,035,000/µl on day 14.

The patient has maintained normal development at 10 months of age, and echography of coronary arteries remains normal, with normal coronary size and no coronary dilation or aneurysm.

Kawasaki disease predominantly affects children between six months and five years of age (up to 80% of the cases)[2]. Incidence in infants younger than three months is lower than for the ages thereafter[7]. On the other hand, children younger than one year of age have a higher incidence of incomplete presentations of the disease[3,8], at rates up to 31.2% of the cases in some studies[9], so that KD is exceptionally diagnosed in this age group in occidental countries[2,10]. Moreover, cardiovascular complications of the disease are more frequent among children less than six months of age[3,9]. As a result, infants less than six months of age usually have an incorrect admission diagnosis and suffer from high morbidity and mortality.

This patient was just two months old, one of the most precocious ages of presentation as described before. Infants with prolonged unexplained febrile illness should be suspected as having KD, even in a very young infant, despite an incomplete clinical presentation.

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