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Kawasaki Disease in a Togolese Child

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Abstract

Introduction: Kawasaki disease (KD) is a severe febrile vasculitis that affects children under 5 years of age. The severity of KD is related to coronary involvement. Few cases have been reported in sub-Saharan Africa. **Objective:** We present a clinical observation of a Togolese infant to illustrate the typical clinical picture that every pediatrician should know. **Observation:** The patient was a 20-month-old infant from Togo who presented with conjunctivitis, cheilitis, stomatitis, and pharyngitis in a febrile setting. There was a satellite sub-maxillary adenopathy. There was a persistent biological inflammatory syndrome with thrombocytosis and a doppler ultrasound confirmed the diagnosis of a coronary aneurysm. Treatment was based on corticosteroid therapy and acetylsalicylic acid with success. **Conclusion:** KD involves cardiac complications that require rigorous and sometimes long-term monitoring to prevent death.

Keywords

Kawasaki Disease, Lympho-Cutaneous-Mucosal Syndrome, Vascularity, Coronary Aneurysm

1. Introduction

Kawasaki disease (KD) is a severe febrile vasculitis preferentially affecting children under 5 years of age [1] [2]. Its incidence is variable and ranges from 4 to 218/100,000, it is high in Japan and Asian countries [2] [3]. It manifests as a high fever lasting at least 5 days with mucocutaneous involvement, involvement of the extremities, and an inflammatory syndrome with thrombocytosis. The severity of MK is related to coronary involvement [1] [2] [3] [4]. In developed countries, it is the leading cause of acquired heart disease [2] [4]. Initially described in

Japan, it is now reported in Africa (Nigeria, South Africa, Tanzania). We report a case of a Togolese child.

2. Clinical Case

Our patient is a Togolese infant, male, born on 10 January 2017. He was 20 months old on admission. He was the only child of the couple and had no known pathological history apart from frequent episodes of coughing. He was brought to the clinic with eye redness, rhinorrhea, irritability, and crying predominantly at night in a febrile setting. He had received cefixime and ibuprofen before admission without success. The examination showed a temperature of 37.5˚C, the weight of 11.7 kg; the height of 82 cm, the head circumference of 48 cm. There was bilateral bulbar conjunctival hyperemia, and the general condition was preserved. There was cheilitis, stomatitis, pharyngitis, submaxillary lymph nodes, breech dermatitis, and anitis. Standing was possible but walking was difficult. The backs of the hands and feet had inflammatory oedema. There was scaling of the skin and plantar intertrigo-interdigito. The signs were intense in the morning and lessened as the day progressed. The blood count on admission showed hypochromic microcytic anemia (Hemoglobin 9.5 g/dl, mean corpuscular volume 74 fl, mean corpuscular hemoglobin content 24), the leucocytes were at 9000/mm^3 with 6340 neutrophils and 2430 lymphocytes. There was thrombocytosis (platelets 475,000/mm^3). There was a biological inflammatory syndrome (Sedimentation rate at 111 mm in the first hour and C-reactive protein at 31 mg/l). Cardiac ultrasound showed isolated dilatation of the right coronary arteries (3.2 mm) and left (3.4 mm) from birth to the first centimeter. There was good myocardial performance. The electrocardiogram showed a regular sinus rhythm at 115/minute and right ventricular hypertrophy. The diagnosis of Kawasaki disease was made one month after onset. Methyl prednisone-based corticosteroid therapy was given as a short course of 5 days. It was combined with acetylsalicylic acid (Aspegic) 250 mg sachet every 6 hours for a fortnight. Acetylsalicylic acid was continued at an anti-platelet aggregation dose after the disappearance of the biological inflammatory syndrome (sedimentation rate 10 mm at the first hour and CRP 4.7 mg/l. The control ultrasound is done 3 months after the start revealed less dilatation of the coronary arteries, the right one measuring 2.1 - 2.7 mm versus 2.8 mm (4 weeks earlier), then 3.2 mm (7 weeks), and the left measures 1.8 - 2.8 mm versus (2.6 - 3.2 mm) (4 weeks earlier) versus 3.4 mm previously (7 weeks). Kawasaki disease with favorable reverse vascular remodeling was confirmed.

3. Discussion

The diagnosis of Kawasaki disease was made after one month and was late in our patient after diagnostic wandering. This delay is linked to the fact that the disease is not well known in sub-Saharan African countries, whereas its seriousness linked to coronary cardiovascular damage indicates that it should be known by

all pediatricians. This will lead to early diagnosis and management. Because of this lack of awareness, few cases have been reported [5] [6] [7]. In developed countries, it is a known condition. It is the most common acquired heart disease in children [2] [3]. The mainstay of treatment is the early use of polyvalent intravenous immunoglobulin combined with acetylsalicylic acid to prevent or reduce cardiovascular complications. Corticosteroids and biotherapy can also be used, especially in cases of intravenous immunoglobulin resistance (after two infusions of intravenous immunoglobulin). However, recovery is possible without immunotherapy, which is the standard treatment. The etiopathogenesis remains unclear. Epidemiological studies point to the hypothesis of a dysfunction of the immune system caused by an environmental factor on a genetically predisposed terrain with exaggerated and uncontrolled production of proinflammatory cytokines. In sub-Saharan Africa, where immunotherapy and biotherapy are not available, treatment with corticosteroids and acetylsalicylic acid should be instituted. Ultrasound and ultrasound monitoring are essential.

4. Conclusion

Kawasaki disease occurs in the tropics in sub-Saharan Africa with a lower frequency than in Asia. Because of the life-threatening nature of the disease, the pediatrician must be aware of it, despite the wide range of infections that can resemble this disease.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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