Medicon Medical Sciences
Volume 4 Issue 5 May 2023
Case Report

Kawasaki Disease, A Case Report from the Paediatric Department of the Donka National Hospital, Chu Conakry (Guinea)

Kolié O[1]*, Bangoura MA[2], Camara E[1], Camara SH[1], Barry MC[3], Kouyaté M[1], Bangoura K[1], Diallo FB[1], Doukouré MA[1] and Bémy PN[1]

[1]*Paediatric service, CHU Donka Guinée-Conakry*

[2]*Institute of Child Nutrition and Health (INSE)*

[3]*Department of Pediatrics, CHU Ignace DEEN Guinea-Conakry*

***Corresponding Author:** Ouo-Ouo Kolié, Paediatric service, CHU Donka Guinée-Conakry.

Received: April 26, 2023; **Published:** May 02, 2023

DOI: 10.55162/MCMS.04.127

Summary

Kawasaki disease is an acute multisystemic vasculitis affecting the coronary arteries. It is the leading cause of acquired heart disease in children. It is more common in boys than in girls with a ratio of 1.6. Diagnosis is clinical and treatment is with immunoglobulins associated with aspirin. We report a case in our department and our objective was to help better identify cases during paediatric consultations in our health facilities.

Keywords: Kawasaki; Paediatrics; Donka

Introduction

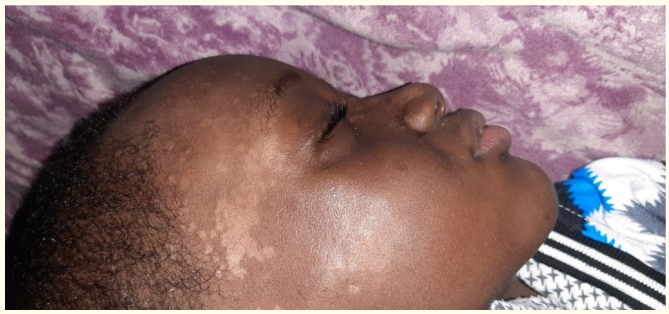
Kawasaki disease is a medium-sized vasculitis of the arteries, including coronary arteries, which are affected in approximately 20% of untreated patients [8]. It is the leading cause of acquired cardiovascular disease in children and remains the second most common scularitis in Pediatry after rheumatoid purpura [1]. The most affected age group is between 6 months and 5 years. But its incomplete form is common in children over 8 years of age with a high risk of aneurysm [13]. The sex ratio is about 1.6 in favor of the male sex [2]. The first patients were described in Japan and then around the world. Without specific confirmatory tests, diagnosis is based on clinical criteria, of which high fever of more than 5 days is the main element [7]. Although its cause remains unknown to date, current hypotheses suggest an infectious origin as well as a genetic susceptibility [11]. Treatment is done with immunoglobulins associated with aspirin [2].

This disease is rarely diagnosed in our health facilities. We report a case of incomplete form in a boy of 8 years and 4 months of our service. The aim was to help health workers to better identify cases of this disease where the risk of developing acquired heart disease remains very high.

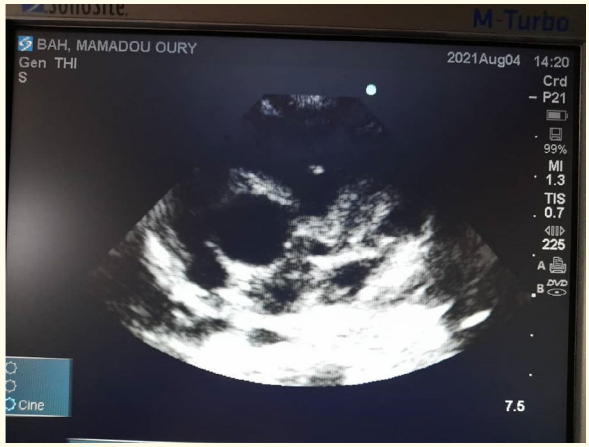
Observation

This is a boy of 8 years 4 months, received for fever, loss of consciousness. Evolution a week. The onset would have been progressive marked by intermittent fever, late postprandial vomiting, physical asthenia. Consultations were carried out in clinics on the periphery without success. The persistence of fever with the occurrence of a loss of consciousness motivates this consultation in our service. The enfant is known sickle cell SS and followed in our service since the age of 2, polytransfused. He is the eldest of 2 living siblings. On physical examination, there was a poor general condition, pallor of the integuments and mucous membranes, impaired consciousness

(Glasgow 7/15), no visible skin peeling, FR 43C/min, FC 112b/min, imperature 39.9°C, weight 17.3kg, size 119 cm. Balance: GE (-), THb 7g/dl, GB 30.2G/l VGM 83.7fl, CCMH 33.5 pg, blister 84G/l, normal cerebrospinal fluid analysis. He is hospitalized for SS sickle cell disease with infectious, cerebral (stroke) and anemic (severe decompensated anemia) complications. He is transfused with concentrated blood and subjected to hydration, paracetamol, ceftriaxone, gentamycin, nasogastric feeding tube and urinary catheter. The evolution was marked by the persistence of fever of more than 5 days between 39 and 41°C, the occurrence of an episode of psychomotor agitation, skin scaling in the head, raspberry tongue, dry lips, systolic murmur at the mitral focus. This heart murmur led us to look for sickle cell heart disease by requesting cardiac Doppler ultrasound which highlighted a normal heart with a coronary vessel aneurysm. A brain scan was performed for sickle cell stroke but was normal. The diagnosis of Kawasaki disease (incomplete form) is made in the presence of the following arguments: age of the patient > 8 years, high fever of more than 5 days and 2 clinical criteria (skin peeling, raspberry tongue), impaired consciousness, irritability, systolic murmur, anemia, elevated white blood cells, ESR and CRP, coronary vessel aneurysm. We have added to the antibiotic therapy already instituted, aspirin 50mg/kg/day in 4 doses. We have not found in our pharmacies immunoglobulins conventionally recommended in the management of Kawasaki disease. The child woke up on the 6th day of hospitalization and apyrexia set in on the 8th day with considerable regression of psychomotor agitations. He is released on the 11th day with a regular rhythm of medical check-ups once a week.



Boy of 8 years 4 months with skin peeling on the head appeared on the 6th day of hospitalization with a temperature oscillating between 39 and 40.5°C.



Cardiac echodoppler of the patient showing coronary vessel aneurysm.

Discussion

Kawasaki disease is an acute multisystem vasculitis affecting medium-sized vessels with a predilection for the coronary arteries [11]. In children, it is the leading cause of acquired heart disease and the most common systemic vasculitis [9]. Described in 1961 by the Japanese Tomisaku Kawasaki in Tokyo, it was first reported in the literature in 1967 [5]. Then, described in Hawaii, the United States, Canada and Europe, its incidence increases globally worldwide. It reaches 10000 children each year in Japan, 3000 in the USA and approximately 600children in France [2]. More than 80% of cases are represented by children aged 6 months to 5 years, with a peak incidence between 2 and 3 years [7]. Patients younger than 6 months or more than 8 years of age are rare but have a higher risk of coronary aneurysm [10, 13]. There is a predominantly masculine with a sex ratio of 1.6 [2].

Although its cause remains unknown to date, current hypotheses suggest an infectious origin as well as a genetic susceptibility [11]. Cases have been described in HIV-immunocompromised adults with the same symptomatology as in children [12]. There are no specific confirmatory tests, so diagnosis is based on clinical criteria: Fever > 38.5°C over 5 days, has painful non-purulent cervical denopathy> 1.5 cm, non-vesicular polymorphic rash, c bilateral non-purulent conjunctivitis, involvement of the extremities, anthema (cheilitis, raspberry tongue, pharyngitis) [7, 9]. Some neuromeningal signs are usually recognized outside of these criteria: impaired consciousness, irritation, apathy, and growling [4]. Three (3) phases of this disease are described: Acute phase (J0-J10), subacute phase (J10-J20) and convalescence phase (J20-J70). Acute cardiac auscultation reveals tachycardia, gallop, functional murmur (secondary to anemia or fever) or murmur of mital insufficiency [1]. KD comes in three forms: Classic, incomplete and atypical. The classic form is characterized by a fever of more than 5 days (essential element), associated with 4 or 5 clinical criteria; the incomplete form, common in children under 1 year and over 5 years, is characterized by a fever of more than 5 days with 2 or 3 clinical criteria, associated with biological criteria (CRP, VS, ASAT, all elevated white blood cells, anemia) and aneurysm of the coronary vessels ; The atypical form is characterized by unusual signs such as convulsions, pulmonary edema, bloody diarrhea, enterocolitis requiring more or less extensive resection of the small intestine, ascites, upper airway obstruction, epiglottitis, compressive cervical lymphadenopathy or hemolysis [1, 7, 11, 9, 6]. Cardiovascular complications occur in the acute phase, but determine the long-term morbidity and mortality of this disease with a risk of death without treatment in the order of 2 to 3% [7, 9, 10]. Treatment is done with immunoglobulins 2g/kg for 10 days and aspirin in high dose 30-50mg/kg taken during the acute phase then 3-5mg/kg until apyrexia is obtained and normalization of CRP for 8 weeks [3, 7].

Conclusion

Kawasaki disease is an acute vasculitis affecting the coronary vessels. It is the most common cause of acquired heart disease in children. His research in pediatric consultation and early management would limit the occurrence of acquired heart disease in pediatric settings, especially in our sickle cell patients who have a high risk of heart disease. We ask our health workers to keep an eye on it in paediatric settings to continue to improve the care of children.

References

1. Bajolle F and Laux D. “Kawasaki disease: what you need to know”. Archives de Pé diatrie 19 (2012): 12648.
2. Bajolle F. “Kawasaki disease”. EMC Angeliology 7.1 (2012): 1-10
3. Dajani AS., et al. “Diagnosis and therapy of Kawasaki disease in children”. Circulation 87 (1993): 177680.
4. Hattori T., et al. “Facial palsy in Kawasaki disease. Report of two cases and a review”. Eu J Pediatr 146 (1987): 601-2.
5. Kawasaki T. “Acute febrile mucocutaneous lymph node syndrome: clinical observations of 50 cases”. Jpn J Allergol 16 (1967): 178.
6. Levy M and Koren G. “Atypical Kawasaki disease: analysis of clinical presentation and diagnostic clues”. Pediatr Infect Dis J 9 (1990): 122-6.
7. Marsaud C and Koné-Paut I. “Kawasaki disease”. Journal of Pediatrics and Childcare (2018).
8. MD Sidney Kimmel. “Maladie de Kawasaki”. Medical College at Thomas Jefferson University (Avr. 2021).
9. Newburger JW., et al. Commitee on Rheumatic Fever, Endocarditis, and Kawasaki Disease, Council on Cardiovascular Disease

in the Young, American Heart Association; American Academy of Pediatrics. Diagnois, treatment, and long-term management of Kawasaki disease: a statement for health professionals from the Commitee on Rheumatic Fever, Endocarditis, and Kawasaki Disease, Council on Cardiovascular Disease in the Young, American Heart Association. Circulation 110 (2004): 2747-71.

10. Rosenfeld EA, Corydon KE and Shulman ST. "Kawsaki disease in infants less than one year of age". J. Pediatr 126 (1995): 524-9.
11. Sabrina BD., et al. "Kawasaki disease: Update". Rev Med Switzerland 14 (2018): 384-9.
12. Sève P and Lega J-C. "Kawasaki disease in adult patients". Rev Med Interne32 (2011): 17-25.
13. Stockheim JA, Innocentini N and Shulman ST. "Kawsaki disease in older children and adolescents". J Pediatr 137 (2000): 250-2.

Volume 4 Issue 5 May 2023