Hair Loss as a Sign of Kawasaki Disease

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Received: 14 September 2005; Received in revised form: 2 March 2006; Accepted: 4 April 2006

ABSTRACT

Kawasaki disease is a multi system disorder with varying clinical expressions. This disease is an acute systemic vasculitis of unknown etiology that has recently recognized as a leading cause of acquired heart disease in children of many developed countries. We describe an unusual instance of hair loss in a patient with Kawasaki disease.

A 26 months old boy developed prolonged high fever, bilateral conjunctival infection, arthralgia and erythromatosis skin rash. He was admitted to the hospital with the diagnosis of Kawasaki disease. Laboratory results included an erythrocyte sedimentation rate (ESR) above 100 and platelet count > 1000,000. The patient developed acute and unprovoked scalp hair loss. He was treated with intravenous immunoglobulin (IVIG) 2 g/kg and aspirin 100 mg/kg/day with complete improvement of signs and symptoms.

This report documents hair loss as an uncommon presentation of Kawasaki disease.

Key words: Acute vasculitis; Fever; Hair loss; Kawasaki

INTRODUCTION

Kawasaki disease (KD) is a systemic vasculitis of childhood with a predilection for the coronary arteries. It is the predominant cause of pediatric acquired heart disease in developed countries. The aetiology of KD remains unknown. The disease can present with protean clinical manifestations which include high grade fever (for at least 5 days), rash, redness of the lips and a typical strawberry tongue, cervical lymph node enlargement (often unilateral), swelling over the hands/feet and, later a characteristic peripheral desquamation over the fingers and toes. These clinical features appear sequentially and the findings may change from day-to-day.

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Other manifestations may include diarrhea, vomiting, abdominal pain, hydrops of gallbladder, myositis, ulcerative stomatitis, aseptic meningitis, cranial or peripheral nerve palsies, transient arthritis and hepatospelenomegaly.

Cardiac involvement is the most important manifestation of Kawasaki disease. We describe a case of diffuse hair loss in a 26 month old boy with KD.

CASE REPORT

A 26 months old well-nurished boy from town of Yasuj without any significant past history developed high and constant fever, irritability and body pain since 12 days prior to admission and was treated with antibiotic and antipyretic without any response. 2-3 days later. He developed a confluent, erythematosis, papular rash over the face, trunk and extremities.

His lips became red and swollen. Bilateral nonsuppotorative conjunctival injection was also noted.
He developed non tender sub mandibular lymphadenopathy. Laboratory data included an erythrocyte sedimentation rate (ESR) of 70mm/h, which increased to 108 mm/h and white blood cell count of 15900 that increased to 22500/mm. Platelet count was 750,000 initially and increased to 1100,000/mm (in the course of hospital and after treatment with IVIG). Blood, throat, stool and urine cultures were negative. Echocardiography revealed no coronary artery abnormalities. KD was diagnosed based on the presence of prolonged fever and four main diagnostic criteria.

![Figure 1. Hair loss in a patient with Kawasaki disease.](image)

The patient developed acute and diffuse scalp hair loss on admission and on the 6th day of fever. Hair loss was generalized and progressive with approximately 40-50 hairs loss in one hour (Figure 1).

He was treated with intravenous immunoglobulin (IVIG) 2 g/kg and aspirin 100 mg/kg with improvement of signs and symptoms. The hair loss stopped completely 12 hours after IVIG.

**DISCUSSION**

KD is the second most common vasculitic disorder of children. KD causes a severe vasculitis of all blood vessels but predominantly affects medium sized artery with predilection for coronary arteries. In the most severely affected vessels, inflammation involves all three layers of vascular wall with destruction of the internal elastic lamina. Thrombi may form in the lumen and obstruct blood flow. Vasculitis in KD may rise to multisystem vasculitis syndrome e.g: ocular cellutites, smooth muscle paralysis, consiousness disorder and facial nerve paralysis. The diffuse loss of hair can occur following high fever, severe illness or stress. Because in this condition all the follicles of hairs from anagen phase enter telogen and these hair are therefore shed, but this condition is commonly seen 4-9 months after stress .

This rare condition may be attributed to vasculitis, stress or heightened inflammatory response. KD with involvement of vasculature of different organs can produce different signs and symptoms. Therefore with presence of principle criteria of KD, this uncommon presentation should not make the physician confused.

**REFERENCES**