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Case Report

Kawasaki Disease- A Case Report

*Haritha B Nair[1], Lubna Sulthana[1], Mara Kurian[1], Meekha Mary Varghese[1], Haja Sherief S[2], Sivakumar T[3]

[1]Pharm D Interns, [2]Head, Department of Pharmacy Practice and [3]Principal, Nandha College of Pharmacy, Erode, Tamil Nadu, India

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ABSTRACT

Kawasaki disease is vasculitis of the medium and small sized blood vessels including coronary arteries mainly occur in children. The diagnosis is based on the clinical criteria like fever, redness of eyes, rashes, swollen lymph glands and inflammation of the mouth. The goal of the therapy is to prevent coronary aneurysm and relieve the symptoms. The pharmacotherapy mainly includes Intravenous Immunoglobulin and Tablet Aspirin. Here we report a case of classic presentation of Kawasaki disease.

Keywords: Kawasaki disease, Vasculitis, Immunoglobulin.

Address for Correspondence: Haritha B Nair, Pharm D Intern, Department of Pharmacy Practice, Nandha College of Pharmacy, Erode, Tamil Nadu, India

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INTRODUCTION

Kawasaki disease is an acute febrile systemic vasculitic syndrome predominantly occur in younger children of age six months to five years often associated with coronary artery aneurysm, formerly known as mucocutaneous lymph node syndrome.[1,2]It was initially identified in a four year old boy in Japan by Dr.Tomisaku Kawasaki in 1960.[3]The incidence is seen higher in children of less than 5 years of age but it can occur in children of any age due to unknown etiology and is more common in spring and winter season.[2,4]There is no specific laboratory test available for diagnosing the disease and is commonly done by clinical criteria.[5]As the disease is associated with coronary aneurysm, there is an increased risk of cardiac complication if left untreated.[2]Treatment mainly rely on Intravenous Immunoglobulin and Aspirin.[2]This case report is done to explore the treatment strategy of Kawasaki disease.

CASE REPORT

A 4 year old boy was admitted in a tertiary care hospital with complaints of high grade fever of 104°F, cough, itching all over the body, vomiting, diarrhea, abdominal pain, headache, burning micturition and yellowish discoloration of urine for past 3 days. Patient was a known case of respiratory tract infection and took treatment from the same hospital 3 months ago. According to the symptoms patient was suspected to have hepatitis but was later confirmed as Kawasaki disease. Diagnosis was done as per the clinical criteria. The symptoms were evolved day by day from admission like polymorphic exanthema, strawberry tongue, cervical lymphadenopathy, conjunctival congestion and desquamation of fingers and toes. Patient was also found to have urinary tract infection where he showed a positive result for the urine culture.

On laboratory investigation, WBC count was 10×10^9/L, Neutrophil-79% and ESR- 45mm/hr. Haemoglobin was 10.7g/dl, MCH-75pg and MCHC-32.9g/dl which revealed that the patient was a case of mild hypochromic anaemia. CRP was positive and there was a slight elevation in SGOT and SGPT levels.

Initially treatment was started with Injection Amoxicillin/clavulanic acid 600mg IV, Injection Emeset 1ml IV, Syrup Paracetamol 2.5 ml, Syrup Zincovit 10ml, IVF NS 150ml/hr and Tablet lanzol junior 15mg (lanzoprazole). On the next day Injection Amikacin 200mg IV and Syrup Citralka 10ml (disodium hydrogen citrate syrup) was added on to the therapy for urinary tract infection. On the same day they changed Injection Amoxicillin/clavulanic acid 600 mg bd to Injection Ceftriaxone 500 mg bd. Patient was recommended to do Echocardiography but didn't showed any sign of cardiac complications before starting the treatment.

On the sixth day of admission, patient showed all the symptoms of Kawasaki disease and the treatment was started with Intravenous Immunoglobulin 5.5g/day (2g/kg/day) and Tablet Aspirin 375 mg/day over 5 days. Patient showed a reduction in symptoms after the treatment. Patient was checked for any reactions every half an hour after starting Immunoglobulin and all other medications were continued as such. Discharge medications include Tablet Lanzoprazole 15 mg and Tablet Aspirin 375mg for a certain period followed by Aspirin 75mg as represented in table 1. Even if the Echo report is normal patient was advised to take an Echo after 14 days from the baseline report to find any complications.

DISCUSSION

Kawasaki disease is the most prevalent cause of vasculitis in children ,[6,7]with an incidence of 5.5 per 1,00,000 in children less than 17 years of age.[5]In most cases, children will recover within few days of treatment, but if left untreated it may lead to life threatening cardiac problems like coronary arteritis, myocarditis, pericarditis, congestive heart failure and sudden death.[8,2] In kawasaki disease, symptoms and laboratory findings are the main stay of diagnosis as to prevent coronary artery aneurysm.[5] Diagnosis was done by using the diagnostic criteria and in our case, the patient had fever for more than 5 days with following signs of strawberry tongue, bilateral conjunctival congestion, cervical lymphadenopathy and polymorphous exanthema.[3] Clinical characteristic of Kawasaki disease is always confused with Scarlet fever and Steven Johnson syndrome .[5]

Treatment for the disease mainly rely on a single dose of Intravenous Immunoglobulin(2g/kg) and Tablet Aspirin of 100mg/kg/day for 14 days.[2] In most cases physician will use a higher dose of aspirin for a certain period as anti-inflammatory agent and it will be continued till the patient become afebrile followed by a lower dose of aspirin for its antiplatelet effects.[5] Patient should be advised to take Echo cardiography 21-28 days from onset of fever to rule out the possibility of coronary artery aneurysm. If they do not show any evidence of coronary aneurysm, further investigation is not needed. Thereafter a repeat Echocardiogram after 1year and at a 5 year interval

is optimal.[5] In conclusion children with fever, cervical lymphadenopathy, polymorphic exanthema, conjunctival congestion, strawberry tongue and ineffective empiric antibiotic therapy should be examined for Kawasaki disease diagnosis.[1] Early diagnosis and prompt treatment is necessary to prevent cardiac complications.[2]

Table NO: 1- Discharge Medications

DRUG	DOSE	FREQUENCY	DURATION
Tablet. Aspirin	375 mg	1-1-1	3 days
		1-1/2-1	3 days
To do echocardiogram			
		1-0-1	3 days
		1-0-1/2	3 days
		1/2-0-1/2	3 days
Repeat echocardiogram			
		1/2-0-0	3 days
Tablet .Aspirin	75 mg	1-0-0	2 weeks
		1/2-0-0	4 weeks
Tablet. Lanzoprazole	15 mg	1-0-0 (b/f)	30 days

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