



## Kawasaki Disease – A Short Review

### KEYWORDS

Kawasaki, bilateral

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**ABSTRACT** *Kawasaki disease is a common disease among children with a particular characteristics like fever, bilateral nonexudative, erythema of lips and mouth and etcetra. It is increasingly known in India over the last 20 years . It has the ability to substitute acute rheumatic fever soon and it may become the predominant cause for getting heart disease among children. Hence, parents should find out more information regarding stuff that related to Kawasaki disease. This is really important in order to prevent and protect their children from suffering this type of disease. This review involves the causes, symptoms, treatments and diagnosis of Kawasaki syndrome.*

### INTRODUCTION

Based on the history of Kawasaki syndrome , it is stated that the first case of an unusual illness with rash and fever had been detected in a 4 year old child by one of the doctor in Japan named Tomisaku Kawasaki [1]. Specifically, this first case had been found at the Red Cross Hospital in Tokyo, Japan .Kawasaki syndrome is an illness that frequently occurs among young children. It usually affects children ages 1 to 2 years and is less common in children which age more than 8 years. This syndrome is not a contagious disease but has the ability to harm the coronal artery of the children which functions to carry blood to heart muscles . Kawasaki syndrome can be categorised as one of the serious illness in the medical field since it has the ability to cause damage towards the growth of the children [2] . This syndrome is believed to occur in all races from all over the world [3] .

The phenotype of Kawasaki syndrome in India is reported to be differs from other countries like North America and Japan. Almost half of the children that suffers Kawasaki syndrome in India are being more than 5 years old. This happens maybe due to the influenced of genetic heterogeneity among various population. Apart from that, male preponderance in India is higher in contrast to Japan and North America. Moreover, the typical of Kawasaki disease called as Periungual desquamation frequently seen a couple of days later in developing countries whereas it usually occurs after 10 days later of fever in India. Other than that, thrombolysis is often appears earlier in India than other countries [4].

### CAUSES OF KAWASAKI SYNDROME

Although an infectious agent had been detected to lead to Kawasaki syndrome but the causes still remain unknown . Kawasaki disease maybe caused due to the abnormal reaction towards some common virus which could bother most of the people. It is also considered as an autoimmune disorder in which our own immune system attacks good tissue as if it were a pathogen . Unfortunately, there is no specific evidence that stated about the causes of this disease [5].

### SYMPTOMS OF KAWASAKI SYNDROME

Generally, the signs and symptoms for Kawasaki syndrome

will be appeared after 10 days of illness and later it will resolve spontaneously in most of the children. Some features that can be observed for patients that suffer Kawasaki syndrome including strawberry tongue associated with loss of filiform papillae and persistence of fungiform papillae, bilateral, erythematous (fissured lips) , unilateral enlarged left jugulodigastric nodes, erythematous rash, erythema of soles, swelling of dorsal of feet and periungual desquamation of toes in convalescent stage [4].

### DIAGNOSIS

Kawasaki syndrome can be diagnosed when the patients have fever that is associated at least four of the five principal clinical features. The clinical features of this syndrome includes the changes in extremities, polymorphous exanthem , bilateral conjunctival injection, changes in the lips and oral cavity and cervical lymphadenopathy. Patients that suffer Kawasaki syndrome will have high and spiking fever and it remains in the untreated patients approximately for 1-2 weeks . The first principal clinical features of Kawasaki syndrome which is the changes of extremities are distinctive. In the early stage of this disease, sometimes patients may feel painful due to the iduration of feet and hands [6].

Subsequently, a polymorphous exanthema usually can be observed within 5 days of the onset of fever. The rash includes an urticarial exanthema, a maculopapular morbilliform eruption, scaratiniform erythroderma and fine micropustular eruption. These various types of rash will be appear in a long period of time if the trunk and extremities also involved. After that, bilateral conjunctival injection frequently occurs after onset of fever. It will only appears in a short time. The bulbar conjunctivae usually involves more than the palpebral and it is painless [6].

Then, changes of the lips and oral cavity includes erythema and cracking of the lips, stawberry tongue that can be seen on patients' tongue and erythema of the oropharyngeal mucosa. However, oral ulceration is hardly seen . In addition, cervical lymphadenotaphy which is the fifth principal of clinical features is the least common compare to the others. The nodes are frequently firm and slightly tender whereas the lymphadenopathy is usually unilateral [6] .

## TREATMENT

Initially, the treatments for Kawasaki syndrome is directed towards decreasing the inflammation especially in the coronary arterial wall and myocardium. After that, the treatments change the aim towards blocking the coronary thrombosis by inhibits platelet aggregation. Latest recommendation for treating patients that had been diagnosed with Kawasaki syndrome are by using intravenous gamma globulin and high dose aspirin. The benefit of using intravenous gamma globulin is it can reduce the coronary arterial abnormalities by preventing the communication between endothelial cells and natural killer cells and by blocking the synthesis of adhesion molecules. High dose aspirin acts as inhibitors for platelets accumulation in children with Kawasaki syndrome. Generally, the amount of the high doses of aspirin is approximately ( 80-100 mg/kg daily divided into four doses ) are utilised in acute inflammatory phase of the syndrome [7].

## CONCLUSION

In conclusion, Kawasaki disease is a disease that often affects children within the range of 6 months to 5 years. Children which is particularly from Asean country are predominantly affected compared to children from western. There are many symptoms that can be seen when this disease is presence. It is a sobering thought that most of the children are still not being diagnosed or offered immunoglobulin therapy. Early diagnosis and early treatment should are now strongly advocated in order to reduce the complications towards children.

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