# Kawasaki Disease

Kawasaki disease is a rare disease of childhood. It is the leading cause of acquired heart disease in children. Kawasaki disease causes swelling and inflammation of the walls of the blood vessels. It also affects the mucus membranes, lymph nodes and the heart. The heart problems are the most worrisome part of the disease. The inflammation of blood vessels in the arteries of the heart (*coronary arteries*) can lead to aneurysms. An aneurysm is a weak area in the blood vessel that balloons out. Such aneurysms can lead to a heart attack. This may happen even in young children. It is very uncommon.
Kawasaki disease is more common in boys and usually at less than five years of age. No cause is known. More cases happen in the late winter and early spring. Children with Kawasaki disease are similar in some ways to children with other illnesses like a viral infection. Kawasaki disease is probably not spread from person to person. Kawasaki disease can last between 2 to 12 weeks. But children feel better shortly after starting treatment.

Kawasaki disease often begins with a high and lasting fever greater than 102° F (38.9° C), often as high as 104° F (40° C). A persistent fever lasting at least five days is considered a hallmark sign. The fever may persist steadily for up to two weeks. It is not very responsive to normal doses of over-the-counter pain medications. Other symptoms are listed below.

## SYMPTOMS

- Fever lasting for more than 5 days is most common, often 102° F to 104° F (38.9 to 40° C).
- Swollen red hands and feet.
- Swollen lymph nodes, commonly in the neck.
- Red, cracked or chapped lips.
- Red palms of the hand and red soles of the feet.
- Mood changes.
- Swollen painful joints. This may be the same on both sides (symmetrical).
- Skin rash, on the trunk (body) not blister like.
- Red, "bloodshot" eyes without drainage.
- Red, "strawberry" tongue.
- Red, dry mouth and throat.
- Peeling palms and soles (later in the disease).
- Heart problems.
- Sometimes children have vomiting, diarrhea and stomach aches.

## DIAGNOSIS

There is no one test to diagnose Kawasaki disease. The diagnosis is usually made based on the patient having most of the symptoms. If your caregiver suspects Kawasaki disease, he/she may recommend some of the following tests: blood work, urinalysis, electrocardiogram, echocardiogram and chest x-ray. Procedures such as ECG and echocardiography may show abnormalities.

## TREATMENT

- Your child will be admitted to the hospital.
- Treatment should start within 10 days of when the symptoms began. Sooner is better.
- Your child will also be treated with medicine called immuno-globulin (IVIG). Intravenous (given by vein) gamma globulin is the standard treatment for Kawasaki disease and is given in high doses. The child's condition usually greatly improves within 24 hours. It decreases the risk of damage to the arteries in the heart (coronary arteries). In an NIH (National Institute of Health) study, gamma globulin decreased the number of aneurysms by 3-5 times, when given in the first ten days of illness. For children who are diagnosed after the 10th day and continue to have fever, IVIG still may be helpful. Children who still have fever two days after IVIG may benefit from further treatments with IVIG. Careful monitoring is necessary during Gamma globulin treatment. It may rarely cause an allergy. **Monitoring is necessary**.

The doctor will probably give your child high doses of aspirin to:

- Lower the fever.
- Decrease the swelling and pain in the joints.
- Help the rash.
- Keep blood clots from forming.

Because aspirin is associated with Reye's syndrome, children who take daily aspirin should have yearly influenza vaccines. If your child develops influenza or chickenpox, aspirin must be stopped for a while. These two viral illnesses are associated with Reye's syndrome when aspirin is used. Aspirin therapy also should not be given for 6 weeks following a chicken pox vaccine.

## PROGNOSIS

- Most children recover completely with treatment.
- It can cause long-term problems like heart disease, arthritis, meningitis, and rarely, death.
- Complications involving the heart, including vessel inflammation and aneurysm, can cause a heart attack at a young age or later in life.
- People with this illness should have lifelong follow up as advised by their caregiver.

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