

What to know about Kawasaki disease

2020-05-15 : 08:49



Children wear face mask to protect themselves from COVID-19 infection in this March 19 file photo. Doctors around the world have noticed a number of children falling sick with a mysterious illness that appears to be linked to the coronavirus over the past few weeks. /Yonhap

Doctors investigate possible link between COVID-19 and rare children's disease

By Bahk Eun-ji

Fears are mounting after a growing number of hospitals in the United States and Europe have reported features of a rare syndrome being spotted in children who have tested positive for COVID-19 over the past few weeks, although experts believe that coronavirus poses a lower threat to children.

At the beginning of last month, the Paediatric Intensive Care Society (PICS), a health service in the United Kingdom, said cases of children admitted to intensive care with what is known as "multi-system inflammatory state" were rising. On Wednesday, Children's National Hospital in the United States also stated there have been several children with COVID-19 who are experiencing a constellation of symptoms that resemble "Kawasaki disease," a rare inflammatory syndrome.

As well as the U.K., and the U.S., France, Italy and Spain have all reported similar cases. The disease has been linked to COVID-19 in some children, but the exact cause has not been identified yet. The World Health Organization (WHO) said it is "urgently" investigating a potential link between the coronavirus and Kawasaki syndrome, while neither the WHO nor the U.S. Centers for Disease Control and Prevention (CDC) has verified the link.

Commonly found in children under five

Kawasaki disease, also known as Kawasaki syndrome, is an illness that typically affects children under the age of five. It is a form of vasculitis, a family of rare disorders characterized by inflammation of the blood vessels.

Clinical signs include "fever, rash, swelling of the hands and feet, irritation and redness of the whites of the eyes, swollen lymph glands in the neck, and irritation and inflammation of the mouth, lips, and throat.

According to the National Institutes of Health, in the U.S., the disease affects annually approximately one in 10,000 children under 5, though recent infections have included children up to age 15. It is especially common in North East Asian countries such as Japan, Taiwan and Korea which have the highest number of incidences worldwide.

The cause of the disease is unknown, but it is widely thought to be due to infection or an abnormal immune response to infection.

Symptoms

The symptoms of Kawasaki disease can be similar to those of other conditions that cause a fever in children. Because of this, it is easy to mistake in children for a common fever. Although the initial symptom associated with the illness is a high fever, antibiotics do not take effect for at least five days as other signs develop. Additional symptoms include inflammation of the sclera; inflammation of mucous membranes of the mouth and throat, resulting in dry, red, cracked lips and red strawberry tongue; swelling of lymph nodes in the neck; redness and swelling of the hands and feet; and a reddish rash.

"Children are diagnosed if they meet five or more of the above symptoms, but recently, increasing number of patients are diagnosed with just two or three symptoms," said Kim Hyun-jung, a pediatrics specialist at Sun General Hospital.

Likewise, even if some patients do not show all of the typical symptoms, it is better to test echocardiography, especially for young children under six months old having a fever for more than seven days, Kim said.

The reason for conducting echocardiography in the diagnosis of Kawasaki disease is that it causes cardiovascular abnormalities.

"Echocardiography should be performed at the time of diagnosis and then again at 1-2 weeks and 6-8 weeks after treatment in order to prevent other coronary complications," said Sohn Se-jeong, a professor of the department of pediatrics at Nowon Eulji Medical Center.

Sohn said if the disease is not treated at an early stage, it can lead to serious complications such as inflammation of the blood vessels that can pose a particular threat to patients.

"Aneurysms can also develop, because it can affect the coronary arteries — the blood vessels that supply blood to the heart."