



Multisystem Inflammatory Syndrome in Children (MIS-C):

A rare disease associated with the Covid-19

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SYMPTOMS OF MIS-C

In most cases, children with MIS-C may have a fever with a temperature of 100.4° F or more than it. It can last several days, along with some other symptoms. According to the Centers for Disease Control and Prevention (CDC), other common symptoms besides fever may include:

- >> Severe abdominal pain without any reason
- >> Having conjunctivitis in which eyes become red or pink
- >> Rash on different parts of the body, especially on the lower part
- >> Poor feeding and nausea or vomiting
- >> Facing trouble while breathing
- >> Inability to stay awake and having a feeling of irritability
- >> Neck pain and chest pain
- >> Swollen hands and legs, which can become red too
- >> Pale, blue and grey-coloured lips, skin, and nail beds, which can differ due to the skin tone

The Covid-19 pandemic has significantly affected people of all age groups, even children in some cases who are thought to be less likely to get affected. However, there is a rare but serious health condition that prevailed among children due to the Covid-19. This unusual disease named Multisystem Inflammatory Syndrome in Children (MIS-C) or Paediatric Multisystem Inflammatory Syndrome (PMIS) was first found in the UK in April 2020. In Bangladesh, it was first detected in June last year. Here is a quick overview of MIS-C.

WHAT IS MIS-C?

MIS-C is a health condition where some organs or tissues of a child such as the heart, kidneys, lungs, brain, eyes, skin or gastrointestinal organs become inflamed. It includes some features which are similar to Kawasaki disease (KD). A very small portion of young people who contract the coronavirus develop this rare condition. The complications of such disease start to appear 2-6 weeks after the initial infection.

From birth to 21 years, anyone can have this condition associated with the Covid-19. Though MIS-C is not contagious, children with such disease can have Covid-19 and any other contagious infection. So it is better to take precautions while taking care of such young patients with MIS-C.

CAN ADULTS GET MIS-C?

MIS-C complications mainly prevail in children and adolescents, but there have been some reports of the multisystem inflammatory syndrome in adults (MIS-A) similar to MIS-C since June 2020. However, MIS-A may also have some different symptoms like low blood pressure, chest tightness, etc., besides common symptoms. This syndrome is more severe and complicated in the case of adults, according to the CDC.

WHAT CAUSES MIS-C?

The actual cause behind MIS-C is still unknown. Even certain health conditions that are more likely to be responsible for such a disease are not determined yet. However, it seems to be an excessive immune response to the coronavirus. Some researchers suspect that the antibodies children make to fight against this virus may cause this illness. Another possibility appears to be genetic factors as the number of children developing MIS-C is too small.

DIAGNOSIS AND TREATMENT

According to the CDC, MIS-C can be diagnosed based on symptoms such as by testing for laboratory evidence or signs of inflammation. There should be a Covid-19 test too. If possible, SARS-CoV-2 serologic testing is recommended even though RT-PCR or antigen testing has been done. As MIS-C is frequently associated with cardiac involvement, different tests such

as echocardiogram, electrocardiogram, cardiac enzyme or troponin testing, and NT-proBNP can be performed.

For now, it is hard to mention any efficient treatment for MIS-C. Children mostly need close observation and some supportive measures according to their needs. The suggested supportive measures of the CDC include respiratory support, inotropic support, fluid resuscitation, and ECMO (in rare cases). Anti-inflammatory measures may consist of the use of IVIG and steroids as per the CDC. There may also be a need to use other anti-inflammatory medications or anti-coagulation treatments, depending on the condition.

Always contact doctors if there is any symptom of MIS-C. Without early diagnosis and treatment, this disease can lead to severe health problems with vital organs like the heart, kidneys, or lungs. In some rare cases, it may cause permanent damage or even death.

PREVENTION IS THE KEY

Like the Covid-19 complications, it is better to prevent MIS-C. In both cases, the only known way of prevention is to avoid contracting this coronavirus. And the best way to do this is to maintain social distance, wear masks, and follow a hygienic life. Encourage children to wear masks and to avoid touching eyes, mouth, or nose with dirty hands. Teach them how to keep hands clean and to cover the mouth with a tissue or elbow while sneezing or coughing.