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Viral Rashes in Children

There have been many recent reports of children coming down with fever and rash over the last few months, majority of these cases come from children attending day care and nursery centres. Such exposure and spread are inevitable in children where close contact and poor hygiene practices enhance the spread of any infective agent.

Causes of Viral Exanthems (Rashes)

Most causes of rashes in children where fever occurs are due to virus, less commonly of bacterial origin, and occasionally due to allergy to medications given during the illness episode.

Chickenpox

Chickenpox is caused by the varicella-zoster virus, and spreads from person to person by direct contact or through the air by coughing or sneezing. It is highly contagious, and takes from two to three weeks for symptoms to develop following exposure to an infected person. The most common symptoms of chickenpox are rash, fever, cough, headache and loss of appetite. The rash occurs as scattered red spots and then forms itchy blisters in several successive crops. They are found on the scalp and body, and then spread to the face, arms, and legs. Scabs develop as the secretions dry up before dropping off to leave scars, temporarily in most and permanent for some. With the introduction of the varicella vaccine a decade ago, the incidence has dropped significantly and in those who contract chicken pox after immunization, the rash may not present in the classical fashion and are usually milder. Complications including bacterial skin infection, pneumonia and encephalitis (acute inflammation of the brain) are rare but serious, more so in infants, adults, and persons with weakened immune systems. Treatment with acyclovir early may shorten the course of illness, and vaccination in the exposed child can prevent, or at least



lessen the severity of illness.



Hand-Foot-Mouth Disease (HFMD)



HFMD is caused by enteroviruses, commonly the coxsackievirus A16 and occasionally the more serious enterovirus 71. They present with red spots or papules and blisters on the palms and soles of children afflicted, with ulcers occurring in the mucosa of the mouth. Most have constitutional symptoms of

fever, lethargy and poor appetite. Infants may develop a more extensive rash involving the buttocks, while adults usually have milder illnesses. Incubation period is one to two days with the rashes lasting five to seven days. HFMD is usually a mild illness, with rare instances of inflammation of the brain and heart. Treatment is supportive, ensuring fluid intake, especially in those with severe inflammation of the mucous membranes of the oral cavity.

Exanthem Subitum (Roseola)

This is a very common viral rash in younger children, usually those less than three years of age. They present with a high spiking temperature with no apparent source of infection for three to four days. The child then breaks out into a maculo-papular rash (little spots or bumps) over the trunk, face and limbs as the fever settles. The extensive rash is usually asymptomatic, lasting for up to one week, and the child is well during this time. The main cause of Roseola is the human herpesvirus 6 (HHV6) and treatment is symptomatic. The incubation period can be from 5 to 14 days before the fever occurs.



Erythema Infectiosum (Fifth Disease)

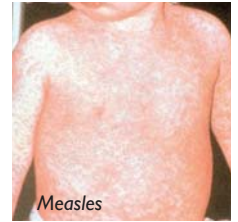


Fifth disease or erythema infectiosum is caused by the Parvovirus B19. It is most common in children between 5 and 15 years old and begins with a low-grade fever, headache, and mild flu-like

symptoms. A bright red rash then develops on the face, giving a "slapped-cheek" appearance, with sparing of the peri-oral region (around the mouth). Next, a macular or morbilliform rash occurs on the extremities, with some children presenting with swelling and pain in the hands, wrists and ankles. The "net-like or lacy" rash then spreads to the trunk, arms, and legs. It may take up to three weeks for the rash to completely clear and treatment is again supportive.

Measles, Rubella

These are less common viral rashes in Singapore nowadays due to our comprehensive vaccination program. The occasional cases are usually imported. Measles presents with white, lacy, Koplik spots in the mucosa of the mouth before the typical papular and morbilliform rash spreads from the face downwards to the trunk and limbs, giving an intense dark red to purplish hue to the skin. Early symptoms like cough, runny nose, conjunctivitis, fever and irritability commonly occur before the rash.



Rubella, also called German measles, presents similarly to measles with red macules on the face spreading down to the trunk and limbs. A distinctive feature for rubella is the extensive and painful lymph node swelling over the neck.

Other Viral Rashes

Besides those mentioned above, there are still many rashes that may occur with other viral infections, especially those of the Epstein-Barr virus, Cytomegalovirus, enteroviruses, echoviruses and coxsackieviruses. They may be non-specific and diagnosis can only be confirmed with blood serology or isolation tests. Treatment however is usually still symptomatic and supportive.

CONTACT US

For more information or appointments, contact:

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Our Paediatricians specialising in General Paediatrics

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