



Breakthrough Measles in an Infant

Bir Yaşından Küçük Çocukta Aşıya Rağmen Gelişen Kızamık

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A 10 months and 10 days old male was admitted with complaints of fever and rash. He had been diagnosed with upper respiratory tract infection in a health institution where he had applied due to 39 °C fever and nasal discharge and was followed up with symptomatic treatment. On the fourth day of fever, he was brought to our hospital because of a rash starting from his neck and spreading to his trunk, arms and legs. Physical examination revealed a body temperature of 38 °C, oropharyngeal hyperemia, bilateral conjunctivitis, diffuse red rash that tended to merge on the head and trunk and was more discrete on the arms and legs. It was learned that the patient had received measles, mumps and rubella vaccine (MMR) one month ago. Measles was considered and 100.000 IU oral vitamin A was given for two days. Serum measles virus immunoglobulin M was negative and immunoglobulin G was positive. Nasopharyngeal swab and urine polymerase chain reaction (PCR) were positive for measles virus. In the follow-up of the patient, fever decreased, rashes faded and he recovered uneventfully.

The measles virus is transmitted by droplet or direct contact with respiratory secretions of an infected person. Prodromal symptoms such as high fever, runny nose, conjunctivitis and cough appear 10-12 days after the virus has entered the body. Koplik's spots, pathognomonic for the disease, appear towards the end of the prodromal period and disappear in the early phase of the rash. The measles rash starts at the hair-line and spreads to the neck and face, then to the trunk and

extremities. The erythematous maculopapular rash tends to gradually coalesce. The rash then turns brown, fades, scales slightly and disappears. There is no specific antiviral treatment for measles. Vitamin A deficiency prolongs recovery



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and increases the risk of complications, so patients with measles should be given vitamin A. There is an effective live attenuated virus vaccine for measles. Measles vaccine has been administered in Türkiye since 1969, with different schedules changing over time. Today, the vaccine is administered with MMR vaccine at 12 and 48 months. In recent years, due to various reasons such as vaccine hesitancy and uncontrolled migration, the number of measles cases has increased and

one dose of MMR vaccine has been added to the national immunization schedule at the ninth month. The effectiveness of measles vaccine administered before the age of one-year decreases due to interaction with antibodies transmitted from the mother in the intrauterine period. It should therefore be remembered that some children vaccinated before the age of one are susceptible to measles.