

# Maculopapular rash and Koplik's spots in adult measles

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A 29-year-old man presented with a five-day history of high fever, cough, coryza, conjunctivitis, and diarrhea. One day before admission, a maculopapular rash had developed on his head and face, and spread to his upper torso and shoulders. Physical examination revealed confluent maculopapules on his trunk (**Figure A**) and Koplik's spots on the buccal mucosa (**Figure B**), both indicative of measles. The diagnosis was later confirmed by the presence of anti-measles immunoglobulin M (IgM) antibodies. The patient was treated with supportive care and he recovered uneventfully. The measles rash is believed to be caused by a hypersensitivity reaction. This characteristic rash appears first on the face and the back of the ears, and then rapidly spreads in a centrifugal manner to the trunk, where it frequently becomes confluent, and finally spreads to the extremities. Koplik's spots are highly characteristic of the prodromal phase of measles. These evanescent white or grey specks classically present on the buccal mucosa opposite the second molars early in the course of measles, and have been regarded as a pathognomonic feature of measles. Occasionally,

they extend to the entire buccal mucosa. Koplik's spots have been reported in 60-70% of the patients, but are probably present in most people who develop measles. They can often be detected through careful observation and can lead to the diagnosis of measles even before the onset of the rash. In conclusion, prompt recognition of the maculopapular rash and Koplik's spots can help in the early diagnosis of measles, which in turn can aid in limiting the transmission of the disease, implementing early isolation measures, and administering prompt post-exposure vaccination to close contacts.

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