

Kawasaki Syndrome or Atypical Measles Mimicking Kawasaki Syndrome?

Sir,

Several infectious agents have been implicated in the pathogenesis of Kawasaki syndrome (KS) (1). Yet its initial definition remains unchanged and is based on clinical arguments (2); severe infectious diseases may then closely mimic KS (3, 4).

CASE REPORT

A 14-year-old boy was admitted for a 15-day illness characterized by high fever (40.5°C), lethargy, non-productive cough, vomiting, diarrhoea, angina and polyadenopathy unresponsive to 10 days of macrolide antibiotherapy. Examination revealed a morbilliform rash on his face and the upper part of the trunk, which had appeared 2 days before admission. Hands and feet were spared. Conjunctivae were erythematous and the lips were fissured. Oral examination showed diffuse stomatitis, without Koplik's spots, pharyngitis and tonsillitis. The generalized lymphadenopathy included cervical nodes of 2 cm in diameter. Echocardiography ruled out coronary aneurysms, and the treatment consisted of infusions with 2 g/kg globulins (Sandoglobuline[®], laboratoire Sandoz, Rueil-Malmaison, France) and 3 g/d aspirin. After 2 days fever decreased and the rash extended in a centrifugal manner, with fine desquamation. The boy was discharged on day 7. Medical examinations 1 and 3 weeks later confirmed recovery. Routine blood tests revealed normal initial haemoglobin concentration (148 g/l), discrete anaemia on day 3 (124 g/l), normal leucocyte and platelet counts with T cell ratio CD4/CD8=0.68. AST and ALT were slightly raised. Erythrocyte sedimentation rate was 52 mm at 1 h. At the age of 2 he had received attenuated live measles vaccine (Rouvax[®], laboratoire Mérieux, Lyon, France). Viral serology was performed on day 1 at admission prior to the administration of Sandoglobuline and revealed seroconversion to measles virus (ELISA assay, Enzygnost, Behring): presence of IgM titres (with a clear optical density/cut-off ratio=8.2) without IgG in acute sera, persistence of IgM and emergence of IgG at 5,200 U (arbitrary unit) at the second determination (day 13). Viral culture was not performed. IgM against Epstein-Barr virus, rubella, Parvovirus B 19, cytomegalovirus (by ELISA assays from Abbott, Biotrin, or Biomérieux laboratories respectively) and Antistreptolysins O were negative. IgG against cytomegalovirus and Parvovirus B 19 were positive; latex and Waaler-Rose tests were negative.

DISCUSSION

This observation raises two possible diagnoses: KS (possibly measles-related) and atypical measles mimicking KS. First, measles-related KS has to be considered, since this boy had five of the Kawasaki clinical criteria (2): temperature >38.5°C for 15 days, nonexudative conjunctivitis, changes of the lips and oral cavity, exanthem and cervical lymphadenopathy. Cases of measles-related KS have previously been reported

(5). In our observation prolonged high fever before the rash may be a strong argument for the diagnosis of KS, despite the lack of abnormal blood tests usually associated with KS (1, 4). Secondly, atypical measles may be suspected, because of contemporaneous seroconversion to measles virus and because severe and atypical measles may mimic KS and fulfil enough clinical criteria to be consistent with this diagnosis (3, 4). The seroconversion to measles virus could have been due to a polygenic immune response induced by KS, but the immune responses to other viruses do not support this hypothesis. So-called atypical measles has been reported in young adults who had received killed measles vaccine; clinical presentation includes a rash involving palms and soles and extending in a centripetal manner (3). The rash was different in our patient, and this may run counter to the diagnosis of atypical measles.

It is noteworthy that atypical measles is not infrequent since vaccination coverage has increased (4). A possible decrease in protective antibody rate may explain the atypical presentation. We believe that physicians should keep in mind the possibility of measles when confronted by severe Kawasaki-like rashes, even in vaccinated children, and that a diagnosis of authentic KS is questionable when there are normal routine blood tests.

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