## Parvovirus infection under the mask of an allergy: a case report

Alina Pankova<sup>1, 2</sup>, Leyla Namazova-Baranova<sup>1, 2, 3</sup>, Vera Kalugina<sup>1</sup>, Anna Alekseeva<sup>1</sup>, Kamilla Efendieva<sup>1, 2</sup>, Julia Levina<sup>1, 2</sup>, Polina Arimova<sup>1</sup>

- <sup>1</sup> Research Institute of Pediatrics and Children's Health in "Central Clinical Hospital of the Russian Academy of Sciences", Moscow, Russian Federation
- <sup>2</sup> Pirogov Russian National Research Medical University, Moscow, Russian Federation
- <sup>3</sup> Belgorod National Research University, Belgorod, Russian Federation

**Background.** The prevalence of parvovirus infection is quite high, the frequency of detection of serological markers increases with age — from  $2{\text -}10\%$  in the group of children under 5 years old, to  $40{\text -}60\%$  in young and middle-aged people. Widespread maculopapular rashes on the body are the most significant and often the only clinical sign of the disease among children and are frequently misdiagnosed as allergic reaction.

**Objective.** To analyze a clinical case of parvovirus infection in a boy with allergy.

**Case report.** An 8-year-old boy appealed to the department in December on the 13th day of the disease with complaints of widespread nonpruritic lacy rash.

The boy suffered from pollinosis in spring and cross-food allergy to stone fruits every year from 2 years old. He has heredity burdened by allergy diseases.

The illness began with nonspecific prodromal symptoms, such as rhinitis, sore throat and subfebrile fever, lasted for 3 days. On day 4 erythematous rash on cheeks

appeared, 2 days later non-itchy, maculopapular rash developed on the trunk and limbs. Ambulance service regarded these symptoms as a toxic-allergic reaction. The child got dexamethasone IM, chloropyramine IM without any significant effect. Then the boy was treated with oral cetirizine, but the rash spread to the upper and lower extremities. The child also followed a strict hypoallergenic diet. On physical examination the patient's condition was satisfactory. There was red rash on the face ('slapped cheek 'rash) and pink nonpruritic maculopapular lacy rash on the entire body, except the feet and palms. According to the results of the blood serum anti-B19 IgM was detected. Symptoms were relief without treatment for 5 days.

**Conclusion.** Maculopapular rashes, the lack of effect of antiallergic therapy necessitate advanced diagnostic. It is necessary to conduct differential diagnosis with infectious diseases despite an aggravated allergy history. Setting the correct diagnosis avoids the prescribing of unnecessary drugs and diets.