Exanthems associated with parvovirus B19 infection in adults

To the Editor: We greatly appreciated the article by Mage et al on “Different patterns of skin manifestations associated with parvovirus B19 primary infection in adults” and we report herein our experience, which is somehow different.

Our series included 270 consecutive adult patients displaying atypical exanthems seen between 1999 and 2013. Fourteen cases (5.8%), 8 in men and 6 in women, median age 34 years (range 21 to 63 years), were related to parvovirus B19 (PB19) infection; 11 patients had a maculopapular eruption on the trunk involving also the neck and extensor surfaces of the extremities. The lesions had some central fading that, in 4 patients, resulted in a lacy or reticulated appearance. Palms and soles were spared and the face was affected only in 1 patient, who, interestingly, exhibited the lacy features both on the trunk and face.

We never observed the classic “slapped cheeks” appearance that characterizes the exanthem in children. Purpuric lesions, instead, which in Mage and colleagues’ experience accounted for 69% of cases, were seen upon careful examination in all our cases. The periflexural location was present in 3 cases (21%), which was almost comparable to the 28% prevalence in Mage and colleagues’ experience. Remarkably, in 2 patients the periflexural involvement started in the axilla and spread centrifugally, retaining predominantly an asymmetric distribution. In these patients, the so-called unilateral laterothoracic exanthem was diagnosed, confirming that PB19 may be one of its etiologic agents. One of these 2 patients had also hepatitis due to PB19 infection.

Also different from Mage et al’s experience (where 14% of their patients with skin manifestations due to parvovirus B19 also had enanthem), enanthems were observed in 10 patients (71%), with their most frequent pattern being maculopapular with petechiae (7 cases). Three patients had a maculopapular enanthem.

In our series, arthralgias developed in 11 patients (79% vs 24% in Mage et al’s experience), as prodromal or accompanying symptoms, involving mostly the hands, knees, wrists, or ankles. Among them, we identified a case of remitting seronegative symmetric synovitis with pitting edema (RS3PE), that occurred as an erythematous, papular, purpuric eruption on the trunk and extremities. RS3PE is a rare syndrome presenting with acute symmetric synovitis of the wrists, carpal joints, and fingers, with pain, swelling and pitting edema of the dorsa of the hands (“boxing-glove hand”) and/or feet. The inflammatory indexes are always elevated, but the rheumatoid factor is negative. The syndrome may be idiopathic or associated with neurologic disorders, malignancies, connective tissue diseases, or infectious agents like PB19.

In our series, specific IgM antibodies were detected in 12 patients (80%), and a positive serum polymerase chain reaction (PCR) test was positive in 11 patients (79%). In interpreting the results of serum PCR test, we should consider that in the primary infection the high-level viremia is present for less than 1 week and declines with the appearance of specific IgMs.

Lastly, 3 of our patients had a PB19 reactivation rather than a primary infection. In fact, even in immunocompetent persons, a PB19 persistent infection in the bone marrow and low plasma levels of DNA has been reported several years after the primary infection and the possibility of viral reactivation can exist.

Funding sources: None.

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