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Letter to the Editor

Henoch-Schonlein purpura successfully treated with a milk-free diet, vitamin D and C: First description

Jozélio Freire de Carvalho
Institute for Health Science, Federal University of Bahia, Salvador, Brazil

To the Editor,

In 2023, a 3-year-old boy, previously healthy, experienced spontaneous skin lesions on his lower limbs and edema over his feet. His mother denied previous local trauma, insect bites, or medication use. The patient had three occurrences of recurrence of these skin lesions, all were related to acute respiratory tract infections (ARTI). No abdominal, gastrointestinal, or hematuria were observed. He received antibiotics for the upper respiratory infections, although no fever or mucopurulent secretion was seen.

His physical examination showed skin lesions with an erythematous palpable purpura over his legs until thigh roots (Fig. 1). The cardiovascular, respiratory tract and abdomen were all normal. Laboratory tests revealed hemoglobin of 11.7 g/L, 10,760 white blood cells, and 553,800 platelets. Coagulation tests were within the normal range. Urine sedimentation showed 2 erythrocytes/field, with no leukocyte. Erythrocyte sedimentation rate (after skin lesion resolution) of 10 mm/1st hour [reference values (RV): <8 mm/1st hour] and C-reactive protein of 4.1 mg/L (RV: <3 mg/L). Serologies to exclude infectious diseases and antistreptolysin O were all negative. Antinuclear antibodies, antineutrophil cytoplasmic antibody (ANCA) and specific autoantibodies (anti-dsDNA, anti-Sm, anti-Ro/SS-A, anti-La/SS-B, anti-U1RNP, IgA, and IgG anti-deaminated gliadin, anti-endomysium, and anti-tissue transglutaminase) were all absent and the serum levels of complement were within normal range. The lactose tolerance test was negative, and the levels of immunoglobulins (IgG, IgA, and IgM) were normal.

We started prednisolone 0.5mg/kg/day, and the patient had a complete clearance of the lesions in 2-3 days. Glucocorticoid was tapered off in 10 days. Although the mother's patient denied any symptoms and signs associated with the ingestion of milk, due to the recurrent ARTI, we suggested that the patient try a milk-free diet (MFD). We also introduced vitamin C 200 mg bid and vitamin D 6,000 IU/day as prevention for URI.

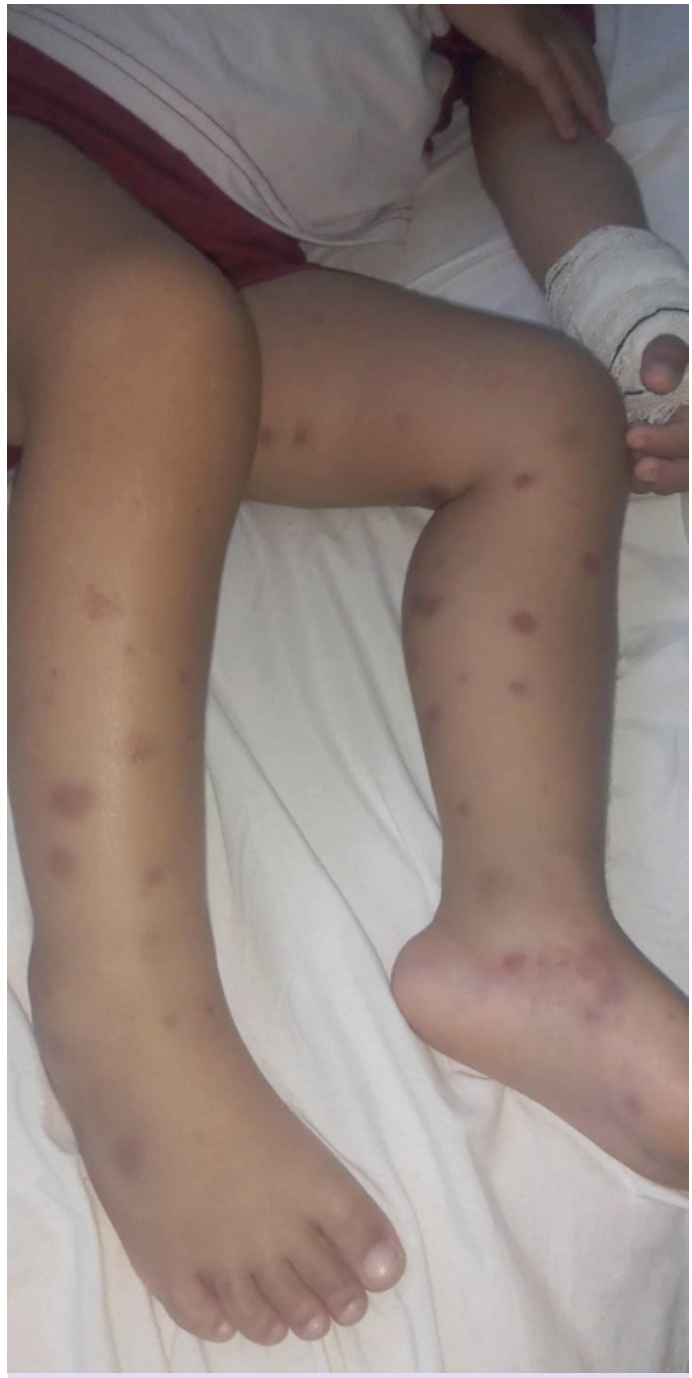

Figure 1. Typical palpable purpura over the lower legs of the children compatible with Henoch-Schonlein purpura.

After starting this diet, he experienced no more recurrence with a complete resolution of all skin lesions for 6 months.

The author followed the World Medical Association Declaration of Helsinki and informed consent was obtained from the patient's mother for publication of this case.

Henoch-Schönlein purpura is an IgA-mediated systemic small vessel vasculitis. It is the most common form of systemic vasculitis in children, affecting the skin, gastrointestinal tract, joints, and kidneys [1].

The diagnosis was clinical, and the biopsy was unnecessary. PHS treatment involves glucocorticoid, immunosuppressive in severe or refractory cases, mainly when there are renal or gastrointestinal involvements.

There is one study on vitamin D supplementation in HSP with positive outcomes. In fact, Fu et al. [2] recently demonstrated that an alfacalcidol supplementation was able to increase vitamin D levels associated with a decrease in the serum levels of the following interleukins (IL): 6, 17, and 21, and also tumor necrosis factor (TNF) than control group. More interestingly, the authors observed a reduction in the PHS recurrence rate after 6 months of this supplementation. Furthermore, a meta-analysis including 10 clinical trials with 2,758 patients showed that vitamin C supplementation could reduce the duration of ARTI (SMD -0.36; 95% CI: -0.62 to -0.09, p=0.01) [3]. Moreover, another systematic review accompanied by a meta-analysis evaluating 70 randomized controlled trials with 9,902 subjects for vitamin D and 10,961 for vitamin C has shown that these vitamins can decrease ARTI and shorten the symptom duration [4]. Regarding the MFD, no study using this specific diet was found to treat patients with HSP.

To the best of our knowledge, this article is the first to describe a patient with HSP successfully treated with an MFD associated with vitamin D and C supplementation. This diagnosis and therapy seem adequate and correct, as the patient stayed symptom-free for 6 months after following an MFD. More studies using this combined approach are desired in this typical child's vasculitis.

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Correspondence: Jozélio Freire de CARVALHO, MD.
Institute for Health Science, Federal University of Bahia, Salvador, Brazil.
Tel: +5571-99187-1169 e-mail: jotafc@gmail.com

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