

Case for diagnosis

Caso para diagnóstico

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CASE REPORT

A 44-year old white female receptionist, born and living in Porto Alegre, Rio Grande do Sul, Brazil sought medical treatment at the dermatology outpatient clinic complaining of papular, purpuric, pruriginous lesions on her hands and feet that had developed four days earlier accompanied by diarrhea and a fever that had abated after 24 hours. She had been treated with systemic corticoids and dexamethasone cream during this period; however, there was no improvement in her clinical condition. She presented laboratory test results (full blood count, kidney and

liver function tests) of samples collected at the onset of the condition. All were normal. She denied any pertinent medical history and reported no similar cases of the disease in the family. She had not used any medication prior to the onset of the condition and did not suspect pregnancy.

Examination revealed a papular-purpuric exanthem with well-defined borders, limited exclusively to the hands and feet, as well as the presence of mouth aphthae (Figures 1 and 2).



FIGURE 1: Papular-purpuric exanthem involving the distal extremities in a “gloves and socks” pattern



FIGURE 2: Details of lesions on the foot, emphasizing the well-defined outline of a sock and the purpuric component

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DISCUSSION

Parvovirus infection consists of a rare dermatosis described for the first time by Harms et al. in 1990.¹ Those authors referred to this condition as “gloves and socks” syndrome because of the typical pattern of the exanthem, limited to the hands and feet. In 1991, Bagot and Revuz reported an association between this syndrome and human parvovirus B19 infection, raising the hypothesis of a viral etiology.²

This virus is highly contagious up to the time at which the eruption appears and it is spread principally by air-carriage of respiratory droplets.³ Parvovirus B19 infection may trigger the abrupt cessation of red blood cell production, causing transient aplastic crisis, chronic red cell aplasia, hydrops fetalis or congenital anemia. This condition occurs mainly in patients with diseases that clinically reduce the half-life of erythrocytes (e.g. iron deficiency anemia, human immunodeficiency virus infection, sickle-cell anemia, spherocytosis, thalassemia).⁴

According to the majority of reports, papular-purpuric gloves and socks syndrome mainly affects children and young adults. Although the majority of parvovirus B19-infected patients are asymptomatic, they may present with mild or non-specific symptoms of a viral infection such as in the case described here. Children may present with malar rash, resulting in an

appearance that resembles a “slapped cheek” (such as in erythema infectiosum).³ In adults, on the other hand, the condition is characterized clinically by the eruption of papular-purpuric, monomorphic macules, accompanied by a pruriginous and painful edema that involves the distal extremities in a gloves and socks pattern.⁵ Some authors have also reported signs and symptoms that occur during the course of the disease such as fever, asthenia, anorexia, arthralgia, lymphadenopathy, mucosal erosions and perineuritis.⁶⁻⁸

Should laboratory confirmation be necessary, the detection of specific immunoglobulin M antibodies is recommended in the case of immunocompetent patients and viral DNA testing for those in an aplastic crisis and for immunocompromised patients.⁴ In the case described here, the lesions were extremely characteristic, and there were systemic symptoms of a viral condition in regression. In addition, there had been no prior exposure to drugs, thus eliminating the possibility of a cutaneous drug reaction.

The course of the disease is generally favorable, although some patients require transfusions or intravenous immunoglobulin. The majority of patients make a full recovery, since the exanthem is self-limiting and disappears within one or two weeks.^{4,9} □

Abstract: Papular-purpuric gloves and socks syndrome is a rare, highly contagious dermatosis caused by parvovirus B19, which may result in the abrupt cessation of red blood cell production in patients with preexisting hematological diseases. It affects predominantly children and young adults and has an unusual presentation.

Keywords: Diagnosis; Exanthem; Extremities; Human Parvovirus B19.

Resumo: A síndrome “gloves and socks” pápulo-purpúrica é uma dermatose incomum, altamente contagiosa, causada pelo parvovírus B19, que pode provocar interrupção aguda da produção de glóbulos vermelhos em pacientes com doenças hematológicas preexistentes. Acomete, principalmente, crianças e jovens, e tem uma apresentação não-usual.

Palavras-chave: Diagnóstico; Exantema; Extremidades; Parvovírus B19 humano

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