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Case Report

Eosinophilic Dermatitis

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ABSTRACT

Idiopathic HES with cutaneous involvement is uncommon. We report the case of diffuse skin rash due to idiopathic HES. An 86-year-old male patient presented with vesiculobullous eruption and severe pruritus. His hematological investigations revealed leukocytosis with peripheral blood eosinophilia. Skin biopsy showed perivascular and interstitial infiltrate of eosinophils in the dermis. No systemic involvement was found on imaging. A diagnosis of idiopathic hypereosinophilic syndrome was made. He was treated with oral prednisolone with significant improvement within 2 months.

Keywords: Eosinophilic dermatitis; Skin rash; Dermis; Bullous pemphigoid

INTRODUCTION

Eosinophilic dermatoses are characterized by eosinophilic infiltration of the skin and/or mucous membranes, with or without associated blood eosinophilia. Cutaneous manifestations of hypereosinophilic syndrome are extremely rare. We report the case of idiopathic HES.

CASE REPORT

An 86 year old male patient, with a history of fungoid mycosis treated by Puvatherapy in 2012 with good response, presented to our department with vesicular eruption located on the lower and upper limbs and the face. He was complaining of severe itching for the past 3 years. He denied personal or family history of atopy. Clinical examination showed mucosal erosions in the anal and oral mucosa, vesicular eruption lying on erythematous base and erosions on the face. There was also an infiltrated erythematous plaque on the back. No lymph nodes were seen. Routine blood investigations revealed the presence of eosinophilia with an absolute eosinophil count of 6000 on two examination 2 months apart. Repeated stool examination did not reveal any evidence of parasitic infestation in (Figures 1 and 2).

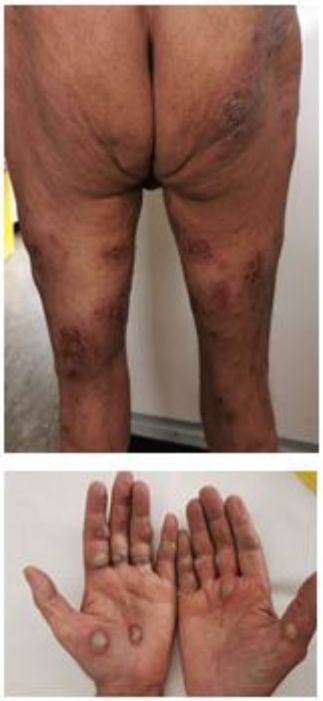

Figure 1: Vesiculobullous eruption in the lower limb and the hands.

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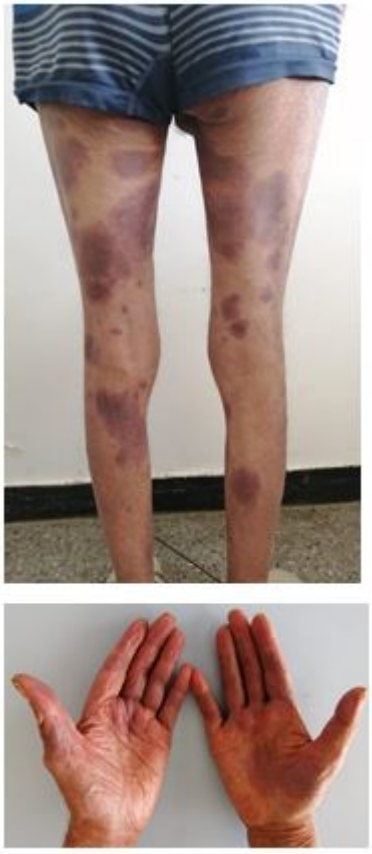

Figure 2: Significant improvement at 2-months follow up.

RESULTS AND DISCUSSION

HES is a group of heterogeneous disorders characterised by persistent peripheral blood eosinophilia (eosinophil count >1500/uL over 6 months), evidence of organ involvement and exclusion of known causes of eosinophilia [1,2]. The most common cutaneous presentation are pruritic, erythematous, oedematous, painful papular eruption on the extremities and/or trunk, nodules and plaques, pustules, blisters, ulcers, urticarial lesions, livedo reticularis, Raynaud's phenomen and digital gangrene. Lichenification of the hands and feet, and perioral/periorbital angioedema have also been reported [3-5].

Our patient presented with vesiculobullous eruption, Other diagnosis should be considered such as bullous pemphigoid, bullous fungoid mycosis, atopic dermatitis, eosinophilic granulomatosis. Histopathological analysis of the biopsy showed significant increase in eosinophils with no signs of malignancy. Bone marrow biopsy was also performed, it showed an increased number of eosinophils with no atypical cells. The diagnosis of HES was considered after the exclusion of secondary causes of eosinophilia such as infections, parasites, malignancy, vasculitis and other disorders with similar clinical and biochemical profiles [6,7].

We performed hematological, biochemical and radiological investigations to assess the prognosis and to rule out secondary causes of eosinophilia. The results were within normal. The therapeutic approach is to decrease the absolute eosinophil count and prevent the progression of the disease. In severe case of HES, high dose of glucocorticoids (1 mg/kg prednisone) are started. Prior to iniating the treatment, we should rule out for parasitic infection. The second line therapy includes imatinib (if myeloproliferative disease is suspected), cyclophosphamide for eosinophilic vasculitis, hydroxyurea and mepolizumab [8].

In less severe cases, symptomatic HES should be treated with oral corticosteroids. Oral prednisone 1 mg/kg/day are administered for 2 weeks. Subsequently, it is tapered and then stopped over next 8 weeks. For isolated cutaneous involvement, the dose could be lower to 0.5 mg/kg/day [8]. As regards the treatment of cutaneous lesions, photochemotherapy with psoralen and ultraviolet A (PUVA) and topical steroids like mometasone can be useful in some patients. In a majority of patients, antihistamines were effective for pruritus and morphine for the pain relief [8]. Asymptomatic patients do not require any treatment but cardiac function screening is mandatory to detect any serious complication.

CONCLUSION

To conclude, cutaneous manifestations of hypereosinophilic syndrome are extremely rare and non specific, therefore, physicians should be aware of idiopathic HES in elderly patients presenting with vesiculobullous eruption with hypereosinophia, without any identifiable aetiology. Atopic dermatitis and bullous pemphigoid are differential diagnosis to consider in our patient but vesicular eruption, bone marrow eosinophilia and the presence of a dermal eosinophilic infiltrate made the diagnosis unlikely. Patients with HES should be followed up to rule out any systemic involvement; Cardiac involvement is the most common cause of death.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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