IJD Case Report

Wells syndrome associated with deep vein thrombosis: a case report

Maryam Sadat Sadati, MD [1,2*]
Mozhdeh Sepaskhah, MD [1,2]
Mina Bazyar Sarani, MD [1]

1. Molecular Dermatology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran
2. Department of Dermatology, Shiraz University of Medical Sciences, Shiraz, Iran

*Corresponding author:
Maryam Sadat Sadati, MD,
Molecular Dermatology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran
Email: msadati63@yahoo.com

Received: 6 April 2023
Accepted: 19 February 2024

Wells syndrome, also known as eosinophilic cellulitis, is a rare skin disorder characterized by recurrent inflammatory erythematous eruptions associated with eosinophilia. Histopathological examination reveals dermal eosinophilic infiltration. We report a case involving a 44-year-old female patient who presented with recurrent erythematous plaques on the left flank and lower limbs for six months. Recently, she experienced moderate to severe pain on the posterior surface of the right shin at the site of one of her cellulitis-like lesions, which was diagnosed as deep vein thrombosis through a color Doppler ultrasound examination. The skin lesions were refractory to various treatments, including corticosteroids and antihistamines. The patient was subsequently treated with a course of oral cyclosporine (100 mg daily), which successfully resolved her symptoms within a few days, with no observed side effects. This case report suggests that low-dose cyclosporine may be a safe and effective therapeutic option for patients with Wells syndrome.

Keywords: wells syndrome, deep vein thrombosis, eosinophilic cellulitis

Iran J Dermatol 2025; 28: 110-113

DOI: 10.22034/ijd.2024.392061.1680

INTRODUCTION

Wells syndrome, also known as eosinophilic cellulitis, is a rare eosinophilic dermatosis characterized by recurrent inflammatory erythematous eruptions associated with eosinophilia [1,2]. It is characterized by clinical findings of cellulitis and histopathological manifestations of intra-dermal eosinophil infiltration, often accompanied by the presence of flame figures. Typical clinical presentations of eosinophilic cellulitis include mildly pruritic, recurrent, and cellulite-like plaques. Occasionally, urticarial, papulonodular, and vesicobullous lesions have also been reported, depending on the location of the infiltrate. Wells syndrome can be associated with a variety of disorders, including arthropod bites, myeloproliferative diseases, colon cancer, reactions to thiomersal-containing vaccinations, Churg-Strauss syndrome, hypereosinophilic syndromes, dermographism, onchocerciasis, herpes simplex infection, immunobullous diseases, and drug reactions [3].

CASE PRESENTATION

A 44-year-old woman presented with pruritic, edematous, erythematous, and indurated plaques measuring 5 to 40 cm on the left flank and lower limbs, which had been recurring for six months (Figure 1).

There was no family history of cutaneous disorders. She had a history of two previous hospitalizations for similar lesions, which were initially thought to be insect bites over the past few months. Since her

Please cite this article as: Sadati MS, Sepaskhah M, Bazyar Sarani M. Wells syndrome associated with deep vein thrombosis: a case report. Iran J Dermatol. 2025;28(2):110-113.

Iran, as well as the Center for Development of Clinical Research at Nemazee Hospital and Dr. Nasrin Shokrpour for editorial assistance.

Authors' contributions

MSS, **MS**, and **MBS** have all contributed to the diagnosis and treatment of the disease; **MS** reviewed and reported the patient's pathology findings; **MBS** wrote the manuscript. All authors approved the final version.

Funding source

None.

Informed consent

The patient has signed the informed consent.

Conflict of interest: None declared.

REFERENCES

1. Kim SH, Kwon JE, Kim H Bin. Successful treatment of steroid-dependent eosinophilic cellulitis with cyclosporine. Allergy, Asthma Immunol Res. 2013;5(1):62–4.
2. Moon S, Shin M. Bullous eosinophilic cellulitis in a child treated with dapsone. Pediatr Dermatol. 2013;30(4):e46–7.
3. Bansal M, Rai T, Pandey SS. Wells syndrome. Indian Dermatol Online J. 2012;3(3):187–9.
4. Sinno H, Lacroix J-P, Lee J, et al. Diagnosis and management of eosinophilic cellulitis (Wells' syndrome): a case series and literature review. Can J Plast Surg. 2012;20(2):91–7.
5. Räßler F, Lukacs J, Elsner P. Treatment of eosinophilic cellulitis (Wells syndrome)–a systematic review. J Eur Acad Dermatology Venereol. 2016;30(9):1465–79.
6. Hess AD, Esa AH, Colombani P. Mechanisms of action of cyclosporine: effect on cells of the immune system and on subcellular events in T cell activation. In: transplantation proceedings. USA : Elsevier; 1988.
7. Teixeira MM, Williams TJ, Hellewell PG. Effects of dexamethasone and cyclosporin A on the accumulation of eosinophils in acute cutaneous inflammation in the guinea-pig. Br J Pharmacol. 1996;118(2):317–24.
8. Wada K, Kaminuma O, Mori A, et al. IL-5-producing T cells that induce airway eosinophilia and hyperresponsiveness are suppressed by dexamethasone and cyclosporin A in mice. Int Arch Allergy Immunol. 1998;117(Suppl. 1):24–7.
9. Mori A, Kaminuma O, Ogawa K, et al. Control of IL-5 production by human helper T cells as a treatment for eosinophilic inflammation: comparison of in vitro and in vivo effects between selective and nonselective cytokine synthesis inhibitors. J Allergy Clin Immunol. 2000;106(1):S58–64.
10. Herr H, Koh JK. Eosinophilic cellulitis (Wells' syndrome) successfully treated with low-dose cyclosporine. J Korean Med Sci. 2001;16(5):664.