

Lipo-prostaglandin E₁ Therapy for Livedo Reticularis with Ulceration

Sir,

Livedo reticularis with ulceration (atrophie blanche) is characterized by periodic painful ulcerations, particularly in the summer in association with livedo reticularis of the legs, which leaves ivory-white scars after healing. This disease usually occurs in young adults and middle-aged females. Its etiopathogenesis and optimal therapy have not yet been clearly established. We here report a patient who was successfully treated with lipo-prostaglandin E₁ (Lipo-PGE₁). Lipo-PGE₁ is a new prostaglandin E₁ (PGE₁) preparation, encapsulated in lipid microspheres (Palux, Taisho pharmaceutical Co. Ltd., Tokyo, Japan).

A 38-year-old woman was admitted to our hospital with painful ulcerations on her legs in July 1996 (Fig. 1). She had been suffering from livedo reticularis on her extremities and trunk since 1981 and also from painful recurrent ulcerations, which had regularly appeared every summer since 1990. A



Fig. 1. Clinical appearance of the patient before start of therapy.

histological examination of early skin lesions showed a thickening of the endothelial cells in the superficial blood vessels and perivascular infiltrates, without any signs of vasculitis. The laboratory data did not show any specific findings indicative of underlying systemic disease. The clinical picture and the histological findings were both compatible with the diagnosis of livedo reticularis with ulceration. Because her disease became exacerbated, with the development of large painful ulcers, Lipo-PGE₁ infusion was started intravenously at a dose of 10 µg daily for 14 days. Almost immediately after beginning the infusions the pain disappeared and no new ulcer formations appeared. After 14 days the ulcers showed signs of healing, with granulation tissue formation. Lipo-PGE₁ therapy was discontinued and thereafter only local therapy was continued. The treatment proved successful and no relapse was observed, and after 3 months the ulcers were almost healed, leaving typical ivory-white scars. Although the patient was treated with Lipo-PGE₁ for such a brief period, the therapy was able to control the painful ulcers. PGE₁, which has such pharmacological effects as vasodilation and inhibition of platelet aggregation, has also been reported to improve the symptoms and signs in livedo reticularis with ulceration (1). An improved stability and efficacy and reduced toxicity of various drugs when incorporated in lipid microspheres have been shown. The good effect of Lipo-PGE₁ may be due to the accumulation of PGE₁ in blood vessels and the decrease of PGE₁ inactivation in the lung thanks to the action of the lipid microspheres (2).

REFERENCES

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