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CORRESPONDENCE

Long-term remission of severe livedoid vasculopathy treated with a short course of intravenous immunoglobulin

Dear Editor,

Livedoid vasculopathy (LV) is characterized by painful purple macules and papules that subsequently ulcerate on the lower legs.[1] Although anticoagulants are the most frequently used drugs followed by corticosteroids to treat LV,[2,3] certain patients still do not respond to these medications. The beneficial effects of intravenous immunoglobulins (IVIG) for LV have been reported.[4–8] However, no standard protocol of the regimen with IVIG for LV has been established, and its superiority over other medications especially in severe cases intractable to conventional medications has not been confirmed. Here, we report a case of severe LV refractory to intense immunosuppressive and anti-thrombotic agents, in which only two cycles of IVIG resulted in remission for 7 years.

A 60-year-old Japanese man with a 10-year history of LV presented with an acute exacerbation of ulcerative lesions on his lower legs (Figure 1A). He had been maintained on a therapy of oral

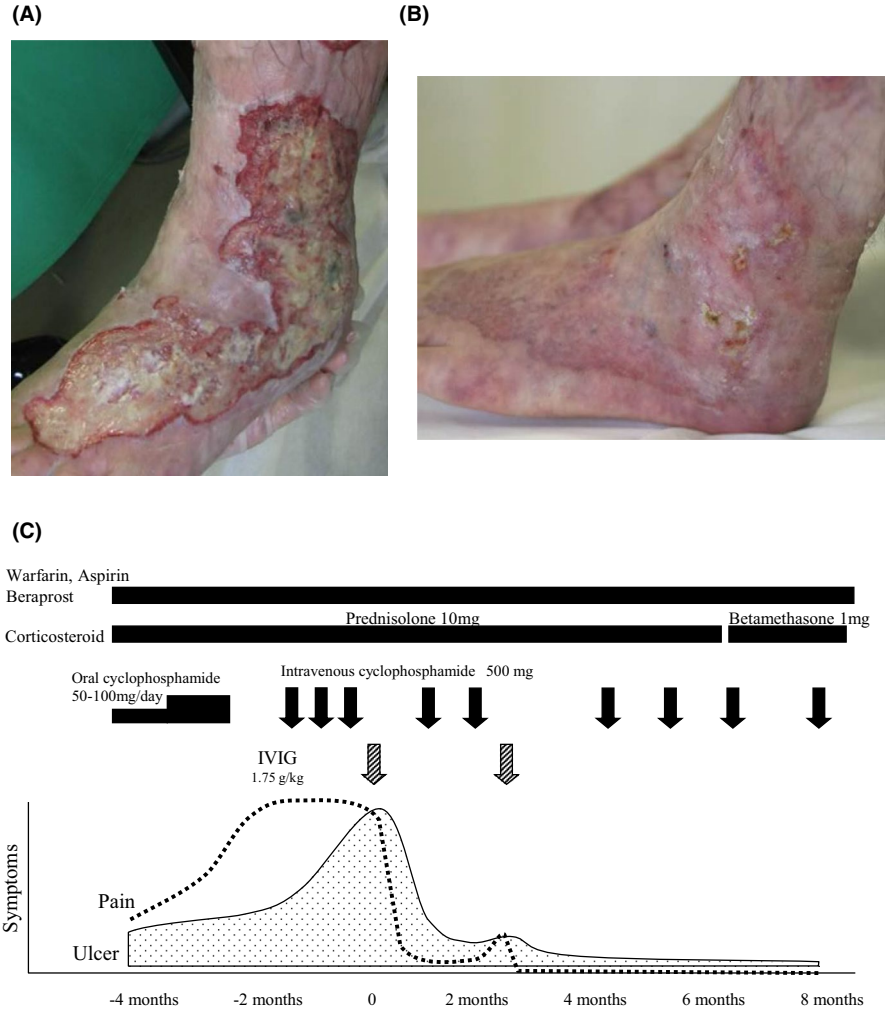

FIGURE 1 (A) Before IVIG treatment, painful ulcers rapidly expanded on both legs. (B) Two cycles of IVIG treatment resulted in healing of ulceration with atrophic scars. (C) Ulcerative lesions and pain worsened despite therapy including oral/intravenous cyclophosphamide, in addition to oral corticosteroid, warfarin, aspirin, and beraprost. The administration of two cycles of IVIG achieved the prompt improvement of clinical manifestations. IVIG, intravenous immunoglobulin

corticosteroids, warfarin, aspirin, and beraprost for the past few years. We treated him with oral/intravenous cyclophosphamide, but severely painful ulcers on his legs expanded rapidly accompanied by elevated C-reactive protein (CRP) levels (Figure 1C). We then administered IVIG at a dose of 0.35 g/kg daily over 5 days followed by another cycle of IVIG with a 10-week interval (Figure 1C). The initial cycle resulted in prompt improvement of the severe pain and ulcerations with a decrease of CRP levels within 4 weeks. The second IVIG cycle was additively administered because of the slight disease flare. IVIG was well tolerated over the course. Following the entire two cycles of IVIG, the disease entered into remission only with the previous treatment (Figure 1B). There has been no flare for 7 years after IVIG until loss to follow-up, leading us to achieve the stepwise withdrawal of the medications to a low dose of mizoribine and beraprost.

In previous reports, IVIG was administered at a dose of 1–2 g/kg and repeated for several to more than 10 cycles regularly at 4-week intervals.[5–8] Most patients achieved dramatic improvement or remission in skin manifestations after the first to the third cycle.[4–8] In our case, severe pain and ulcerations on the patient's legs had not responded to an intensive regimen combining immunosuppressive and anti-platelet/coagulant agents, but dramatically decreased within 4 weeks after the first administration of 1.75 g/kg IVIG. Moreover, a long-lasting remission of LV for 7 years was achieved after the second cycle of IVIG in response to a slight flare of the disease, even with the previous therapy which had been ineffective before IVIG. The mechanism by which IVIG acts on the pathogenesis of LV remains unclear. However, long-lasting remission achieved by a short course of IVIG in our intractable case suggests that IVIG may exert unique immunological and/or antithrombotic actions different from other agents. It also implies that only short-term or on-demand use of IVIG for acute flare may dampen down disease activity and induce a prolonged remission in cases of LV intractable to anticoagulants and corticosteroids.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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