Digital Gangrene in Systemic Lupus Erythematosus

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Digital ulcers and gangrene are relatively rare manifestations in systemic lupus erythematosus (SLE).¹ A study held in Beijing only found 18 patients with digital gangrene from 2684 lupus patients.² The most likely cause of digital gangrene in SLE is antiphospholipid syndrome (APS). The prevalence of digital gangrene is reported 3.3-7.5% of APS patients.³

We present a case of a 27-years old woman with digital gangrene of the left hand and systemic lupus erythematosus. Two weeks before admission, she felt severe pain in her left third to fifth finger and developed gangrene that extended to the back of the hand (Figure 1). She was diagnosed with systemic lupus erythematosus with polyserositis, renal involvement, and secondary antiphospholipid syndrome. At diagnosis, the anti-nuclear antibody was positive, and anti ds-DNA was elevated. Lupus anticoagulant was positive, but anti-β2GP1 antibodies and anti cardiolipin antibodies were negative.

The patient was treated with metilprednisolon, cilostazol, ascardia, and heparin, along with necrotomy-debridement procedure (Figure 3). After four cycles of cyclo-phosphamide therapy (Figure 3), the patient showed improvement.

She also treated with cyclophosphamide therapy 500 mg for six cycles every two weeks. The gangrene was gradually improved and no new lesions have developed, but the third to fifth finger tips were not viable and planned to amputate (Figure 3).

Several factors contribute to the etiology of digital gangrene in SLE, such as APS, overlap syndrome, atherosclerosis, and vasculitis. Cyclophosphamide, as an alkylating agent, is often used for the most severe organ system manifestations of SLE, and is the most commonly used induction therapy for lupus nephritis. In a study from Liu et al., from 18 lupus patients with digital gangrene, 15 patients got ≥1 mg/kg/day prednisone and 18 were treated with cyclophosphamide. From these patients, eight cases failed and received digital amputation. This study concluded that prompt corticosteroid treatment (prednisone ≥1 mg/kg/day started within 3 weeks) decreased the hazard of amputation, p=0.073, HR=0.13 (95% CI 0.01,1.21).2

REFERENCES