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LETTER TO THE EDITOR

Multiple Eruptive Dermatofibromas in a Patient With Systemic Lupus Erythematosus Treated With Methylprednisolone

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A 37-year-old female patient presented to our clinic with a four-month history of asymptomatic lesions on the torso and in the lower extremities. Patient history revealed that the patient had presented to a hospital five years earlier due to the complaints including photosensitivity, malar rash, oral aft, hair loss, fatigue, and arthralgia and had been diagnosed as having systemic lupus erythematosus (SLE) depending on the clinical signs and symptoms including an erythrocyte sedimentation rate of 83 mm/hour and positive antinuclear antibodies and anti-double stranded deoxyribonucleic acid. Subsequently, the patient had been initiated on methylprednisolone 64 mg/day and hydroxychloroquine sulphate 400 mg/day. For the last five years, the patient had been using systemic methylprednisolone and hydroxychloroquine sulphate at varying dosages. The patient had no history of trauma, injection, or insect bite. A skin examination revealed well-marginated, hard, black-brownish plaques varying in size between 1-2 cm, with three plaques on the anterior torso and six plaques on the extensor surface of the thigh and the leg (Figure 1). Histopathologic examination of a skin biopsy revealed a lesion containing oval fusiform cells and incarcerating collagen fibers was seen in the dermis (Figure 2). Depending on these sign and symptoms, the patient was diagnosed as having multiple eruptive dermatofibromas (MEDFs). No treatment was performed since the lesions resolved spontaneously.

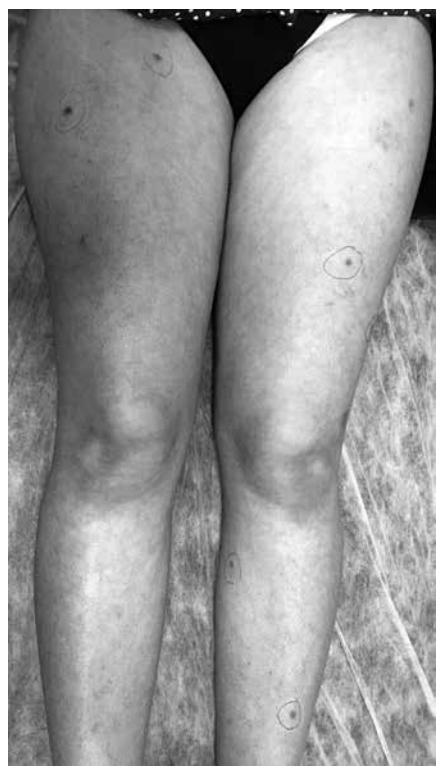

Figure 1. A skin examination revealed well-marginated, hard, black-brownish plaques varying in size between 1-2 cm, on extensor surface of thigh and leg.

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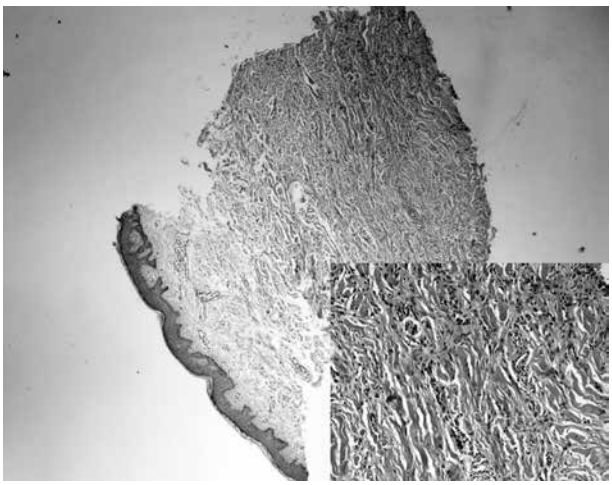

Figure 2. A lesion containing oval fusiform cells and incarcerating collagen fibers was seen in dermis (H-E×40).

Dermatofibroma (DF) is a dermal tumor caused by the proliferation of fusiform cells in the dermis. DFs are often seen in the lower extremities of adult women. Clinically, DFs present as brownish, raised papules with a diameter ranging between 2 mm and 2 cm.[1] MEDF refers to the appearance of 15 or more DFs or to the presence of five-eight dermatofibromas appearing within a four-month period.[2,3] MEDFs account for less than 0.3% of all DFs. MEDFs can be seen in all ages and the lesions often occur on the torso.[4] Histopathologically, MEDFs include a dense polymorphic infiltrate of mononuclear cells including fibroblasts, myofibroblasts, and histiocytes and thick hyaline collagen bundles in the periphery.[4,5]

Almost 69% of MEDF cases have an underlying disease and 83% of these underlying diseases are associated with immune dysregulation. The most common underlying diseases include SLE and human immunodeficiency virus infection. The MEDF cases associated with SLE often have a medication history of steroids and immunosuppressive drugs. The other underlying diseases include myasthenia gravis, Sjögren's syndrome, dermatomyositis, and Grave's disease.[1-5]

The exact pathogenesis of DFs remains unknown although it is considered to be reactive hyperplasia rather than a neoplasm. The lesions in DFs represent the reactive proliferation of the fibroblasts, which often occurs secondary to minor trauma, injections, or an insect bite. The levels of basic fibroblast growth factor and platelet-derived growth factor, both of which promote fibroblast proliferation, have been shown to be elevated in the serum of the patients co-presenting with MEDF and SLE, which could explain the growth risk of DF.[1,3,5] The role of immunosuppressive drugs in the development of MEDF could be explained by the fact that MEDF results from an abortive immunoreactive process that can be triggered by the drugs that downregulate the T-cells.[2,4]

Although rarely seen in clinical practice, MEDF can be seen in SLE patients using steroids or other immunosuppressive drugs. Clinicians should be aware of this rare coexistence of MEDF and SLE and the clinical appearance of the lesions.

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