Dermatology Practical & Conceptual

Multiple Familiar Eruptive Dermatofibromas: Report of Three Affected Generations

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Introduction

Multiple eruptive dermatofibromas (MEDF) is a very rare entity characterized by the development of 15 or more asymptomatic lesions all over the body or clustered in one anatomic location within a short period (usually 4 months) [1]. The pathogenesis is unknown, although most patients with MEDF have underlying causes. Physicians should consider a prompt investigation of underlying conditions, including HIV infection, autoimmune disease, immunosuppressant drug use, and hematologic disease [2]. We report three members of the same family who developed MEDF.

Case Presentation

A 50-year-old woman was referred for consultation due to melanoma. Clinical examination revealed multiple asymptomatic nodules on the trunk and lower limbs, noting the first nodule during adolescence. More lesions appeared during the next decades, and some increased in size. Clinical examination revealed multiple atrophic purple and firm flesh-colored papules, measuring between 0.5 and 1 cm in diameter and sinking into the skin with lateral pressure. Dermoscopic examination revealed lesions consistent with dermatofibromas. The rest of the clinical examination was unremarkable. During the interview, the patient mentioned that her 87-year-old father and his 34-year-old son also presented similar multiple lesions. Both patients were invited for clinical examination. The otherwise-healthy father had at least 70 lesions on the trunk and lower limbs. The otherwise healthy son had at least 50 lesions in the same areas (Figure 1). Upon questioning, the three family members denied infections, autoimmune disease, malignancies, or immunosuppressive drug use. A "familiar" MEDF diagnosis was made, and annual follow-up appointments were scheduled.

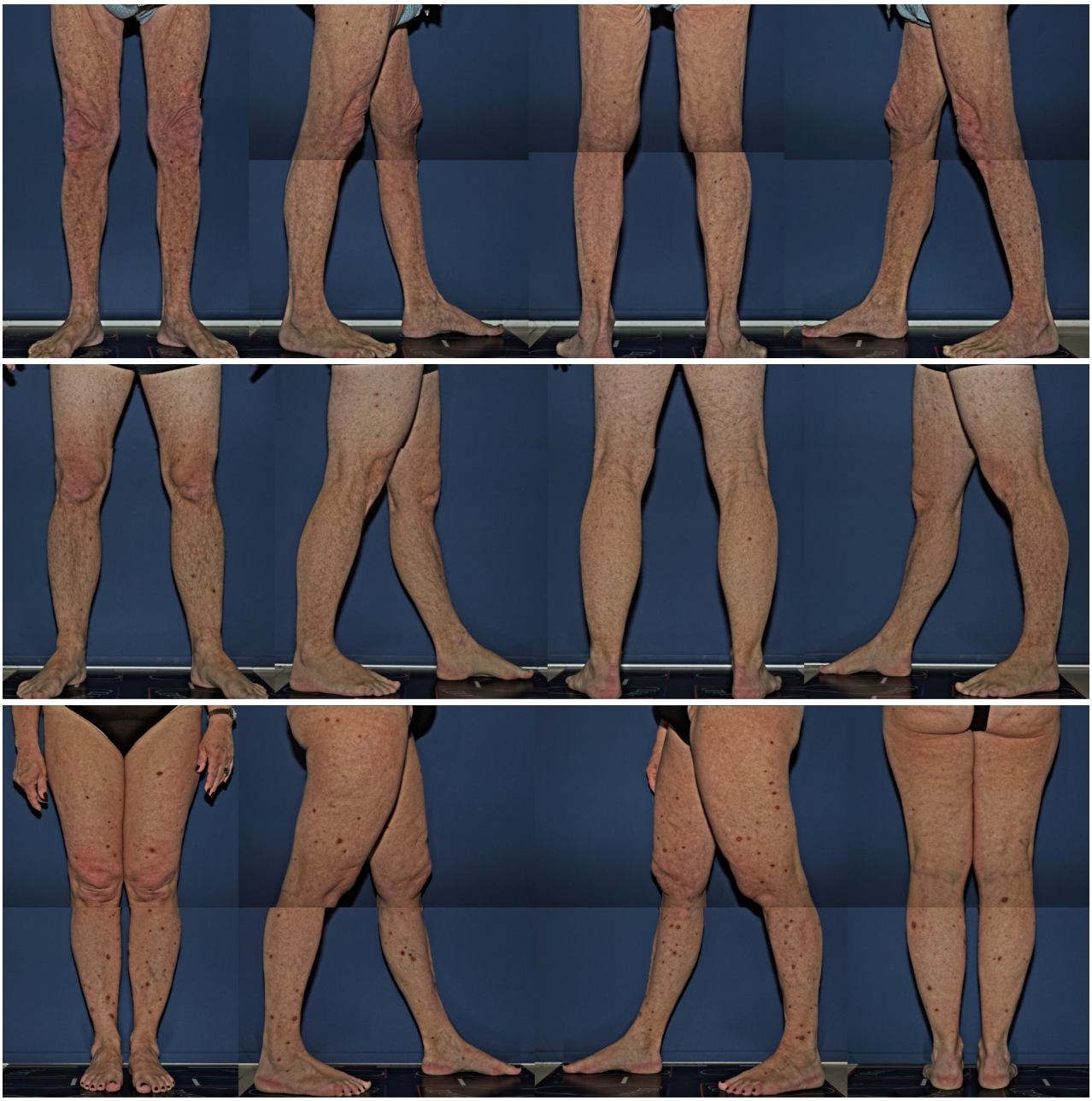

Figure 1. Polarized clinical images showing multiple lesions consistent with dermatofibromas predominantly located in lower limbs in the 50-year-old woman (upper row), her father (middle row) and her son (lower row).

Conclusions

The pathogenesis of dermatofibromas remains unknown. Lesions often develop after a traumatic insult to the skin (insect bites), but altered immunity may play an important role in MEDF [3]. The term "multiple familiar eruptive dermatofibromas" was described by Marque et al in 2013 [4]. This report was the first on healthy individuals of the same family. A genetic cause for MEDF has been suggested with an autosomal dominant inheritance pattern [3]. To our knowledge, this is the first report in which three generations have MEDF with no associated cause. Dermatologists should be aware that MEDF may be a sign of altered immunity. Nonetheless, it should also be considered an inherited disorder, especially when multiple family members have the same condition.

References

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