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Treatment with the Pinhole Technique Using Erbium-Doped Yttrium Aluminium Garnet Laser for a Café au Lait Macule and Carbon Dioxide Laser for Facial Telangiectasia

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Dear Editor:

Café au lait macules (CALMs) are benign epidermal pigmented lesions that can be idiopathic or associated with neurocutaneous syndromes, whereas facial telangiectasia is characterized by small dilated vessels that are visible on the surface of the skin.

A 15-year-old boy presented with a CALM on his cheek (Fig. 1A). We performed 6 sessions of pinhole treatment every 4 weeks using erbium : YAG laser (Er : YAG Action; Lutronic, Goyang, Korea) set to a continuous wave mode with a spot size of 1 mm and a fluence of 0.2 mJ/cm². The lesion showed marked improvement with mild erythema, and there was no recurrence at the 12-month follow-up (Fig. 1B).

A 55-year-old female presented with a 10-year history of telangiectasia on the right cheek (Fig. 2A). The telangiectasia was treated using the pinhole method using a CO₂ laser (UM-L25; Union Medical Engineering, Uijeongbu, Korea) in continuous wave mode; the parameters were 1-mm spot size and 1.0-W output power. Multiple small holes, measuring 1 mm in diameter, were made down to the papillary dermis. These holes were made approximately 3 mm apart all over the telangiectasia area (Fig. 2B). The telangiectasia showed significant improvement after 1 treatment session (Fig. 2C). No recurrence was noted at the 3-month follow-up.

We used 2 different ablative lasers, erbium : YAG and CO₂ laser in the treatment of CALM and telangiectasia.

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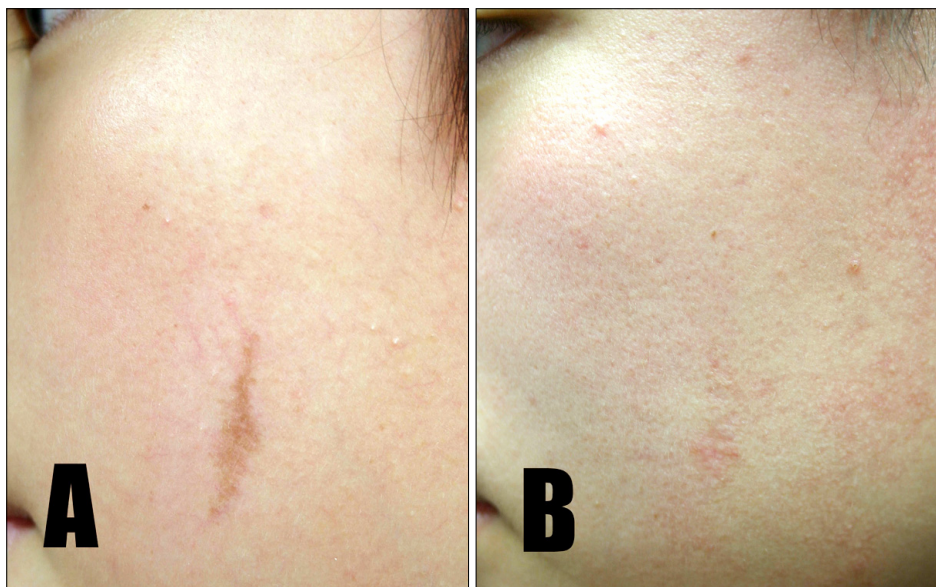


Fig. 1. A café au lait macule in a 15-year-old boy. (A) Before treatment, a 4×0.5-cm brown patch was evident on the patient's cheek. (B) This lesion showed marked improvement with only mild erythema at 1 year after final treatment (6 treatment sessions with the pinhole method using the erbium : YAG laser, at 4-week intervals).

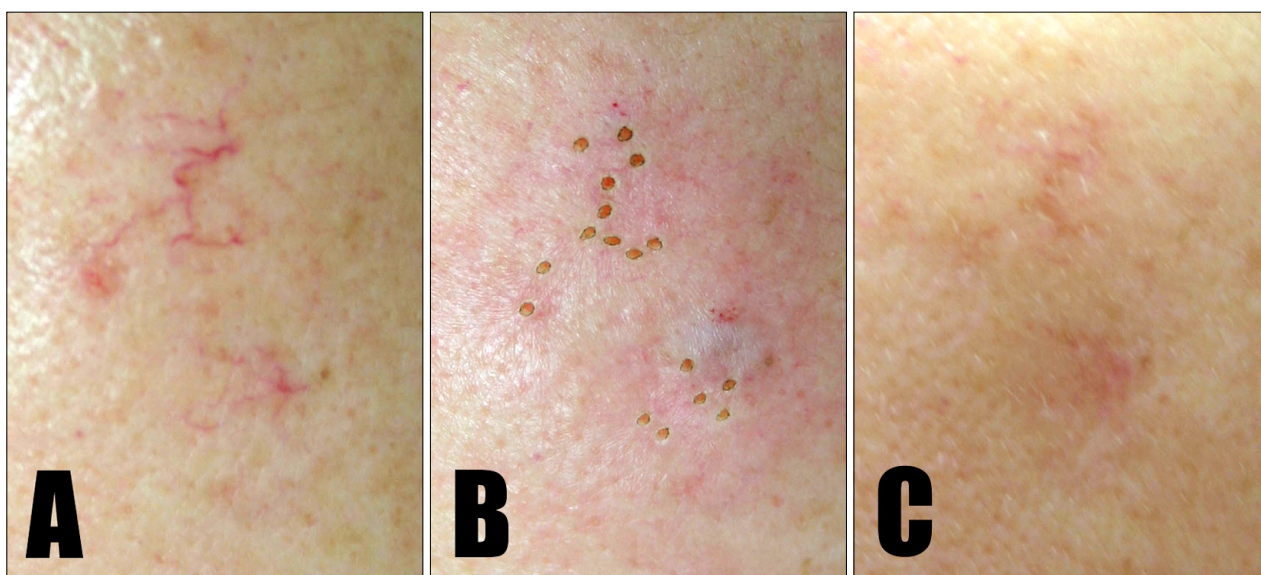


Fig. 2. Facial telangiectasia in a 55-year-old woman. (A) Telangiectasia on the right cheek before treatment. (B) Multiple deep holes were made in line with the course of the vessels. (C) The telangiectasia showed significant improvement 1 month after 1 treatment session with the pinhole method using the CO₂ laser.

The CO₂ laser is used in cases where there is a concern about bleeding, whereas the erbium : YAG laser is used in cases where the accurate assessment of depth and width is important because the coagulation layer of the CO₂ laser could interfere with this evaluation. The pinhole method, a manual type fractionated laser treatment, is a new way of using the conventional ablative laser. The pinhole method with ablative lasers involves making multiple small holes that penetrate from the epidermis to the deeper dermis at 2 to 5-mm intervals^{1,2}. In cases of telangiectasia, treating only some points with the pinhole technique is sufficient for

treating the entire affected surface. Blood vessels are like pipes and some coagulated, obstructed points in them can shut down the functioning of the entire structure; however, the treatment modality for CALM does not appear to correspond well with this suggested theory. Therefore, in our patients' cases, the CALM was successfully removed after multiple treatment sessions, whereas the telangiectasia was successfully treated after only 1 session. The holes produced through the pinhole method are surrounded by untreated areas that aid in rapid epidermal repair, thereby reducing the downtime and side

effects^{3,4}. The other advantages of using this pinhole technique with ablative lasers are that is easier to use and less expensive than the treatment modality involving pulsed dye laser, as ablative lasers are usually available in most dermatology clinics.

In conclusion, the pinhole method using the erbium : YAG laser could be beneficial for treating CALMs, which have been proven difficult to treat with other methods. Furthermore, the pinhole method using the CO₂ laser can be used an effective treatment alternative for telangiectasia.

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A Case of Primary Cutaneous Scar Infection Caused by *Aspergillus niger*

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Dear Editor:

Here, we report the case of a 78-year-old healthy woman who presented with a 7.5×8-cm erythematous eschar-like crusted indurated plaque and pustules with purulent discharges on a chicken-pecked scar on the right forearm that developed 2 month prior to her visit (Fig. 1). The patient was diagnosed with type 2 diabetes and hypertension 12 years earlier. She was afebrile and otherwise healthy.

Skin biopsy was performed, including staining with hematoxylin and eosin, and Gomori methenamine silver (GMS) for histologic, bacteriologic, and mycologic examination. The histologic sections stained with hematoxylin and eosin exhibited numerous dichotomously branching and septate hyphae in the granulated tissue. Meanwhile, GMS staining showed dark brown/black-colored hyphae walls (Fig. 2). Cultures from the skin biopsy specimens and exudates on Sabouraud's agar at 37°C repeatedly exhibited rapidly

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