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DERMATOLOGIC THERAPY WILEY

LETTER

Ixekizumab in scalp psoriasis: Clinical, dermoscopical, and in vivo reflectance confocal microscopy evaluation

Dear Editor,

Psoriasis is a common inflammatory skin condition affecting 2% of the population.[1] The scalp is the most commonly affected area and is often resistant to therapy.[2,3] Nowadays biologics have shown promising results for psoriasis including scalp lesions.[3,4] In vivo reflectance confocal microscopy (RCM) is a noninvasive technique that allows real-time, high-resolution visualization of the skin.[5,6] RCM has been used for diagnosis of inflammatory disorders; useful for therapeutic and disease progression assessment.[7,8] We report the first two cases of scalp psoriasis, successfully treated with ixekizumab, followed with dermoscopic and RCM examination.

A 50-year-old female was referred to our hospital for moderate-to-severe psoriasis. She had been treated with conventional systemic therapies without improvement. Examination showed baseline Psoriasis Area and Severity Index (PASI) of 28, body surface area (BSA) of 30.2, and Psoriasis Scalp Severity Index (PSSI) of 72 (Figure 1A). Dermoscopy revealed an erythematous background with white interfollicular scales, glomerular, and linear blood vessels (Figure 1B). RCM exposed parakeratosis, orthokeratosis, atypical honeycomb pattern, and inflammatory cells on the superficial layer, whereas, at the dermal-epidermal junction, papillomatosis with dermal papillae (DPs) increased in diameter and capillaries (Figure 1C). Ixekizumab was chosen for its rapidity on special locations. At week-12 the patient reported significant improvement (PASI90), with residual hyperpigmented macules and 5% scalp involvement (PASI 0.3, BSA 0.5, PSSI 3) (Figure 1D). Dermoscopy showed mild interfollicular scales with few blood vessels (Figure 1E). An important decrease in inflammatory cells, papillomatosis, and capillary blood flow was seen with RCM and a return to normal DP configuration (Figure 1F).

A 34-year-old male patient with history of atherosclerosis with femoral angioplasty and stenting, was referred to our clinic with pruritic plaque psoriasis. He had been treated with methotrexate without improvement. At baseline PASI 20, BSA 17.3, and 40% scalp involvement with PSSI 21 were found. Dermoscopy revealed moderate whitish interfollicular scaling with dotted and glomerular vessels. At RCM superficial layers were characterized by thick stratum corneum, parakeratosis, orthokeratosis, and inflammatory cells; up-located papillae with dilated and prominent vessels were detected. After 12 weeks with ixekizumab PASI90 was reported with few post-inflammatory macules and 5% scalp involvement. On dermoscopy mild interfollicular scales were found. Whereas, on RCM a nearly normal DP configuration was seen, though few inflammatory cells were present.

The challenges in treating special-site psoriasis have been faced by biologics. Among all, anti-IL17 have shown fast efficacy in scalp psoriasis.[3] Real-life data confirmed the efficacy and rapidity of anti-IL17 when compared to other biologics such as anti-TNF or anti-IL12/23.[9]

Here we describe, for the first time, the clinical, dermoscopical, and RCM combined assessment of two patients treated with ixekizumab. At baseline, the RCM features reflected typical characteristics of scalp psoriasis histopathology. After 12 weeks of treatment, nevertheless huge clinical improvement, a decrease in the papillomatosis was still associated with few remaining inflammatory cells. Both patients achieved PSSI90 and denied treatment-related side effects. Our data are in line with those reported in clinical trials where at 12-weeks PSSI90 and PSSI100 were achieved in 75.6% and 68.9%.[2] RCM highlighted how a longer period is required for thorough subclinical alterations resolution despite complete clinical response. RCM could open new insights on the subclinical evaluation of special-site response to biological therapy. Head-to-head comparisons of different biologics for treatment of scalp psoriasis are still missing. However, current evidence suggests the newest biologics, such as anti-IL-17 and anti-IL-23, seem to have the highest clinical efficacy.[3] We hereby confirm the efficacy and safety of ixekizumab in both our patients with scalp psoriasis. RCM could be contemplated as a promising instrument for in vivo monitoring response to biologic therapies.

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CONFLICT OF INTEREST

Dr. Sonia Ocampo-Garza, Dr. Alessia Villani, Dr. Eleonora Cinelli, and Dr. Elisa Camela have no conflict of interest to declare.

Dr. Matteo Megna acted as speaker or consultant for Novartis, Eli Lilly and Abbvie.

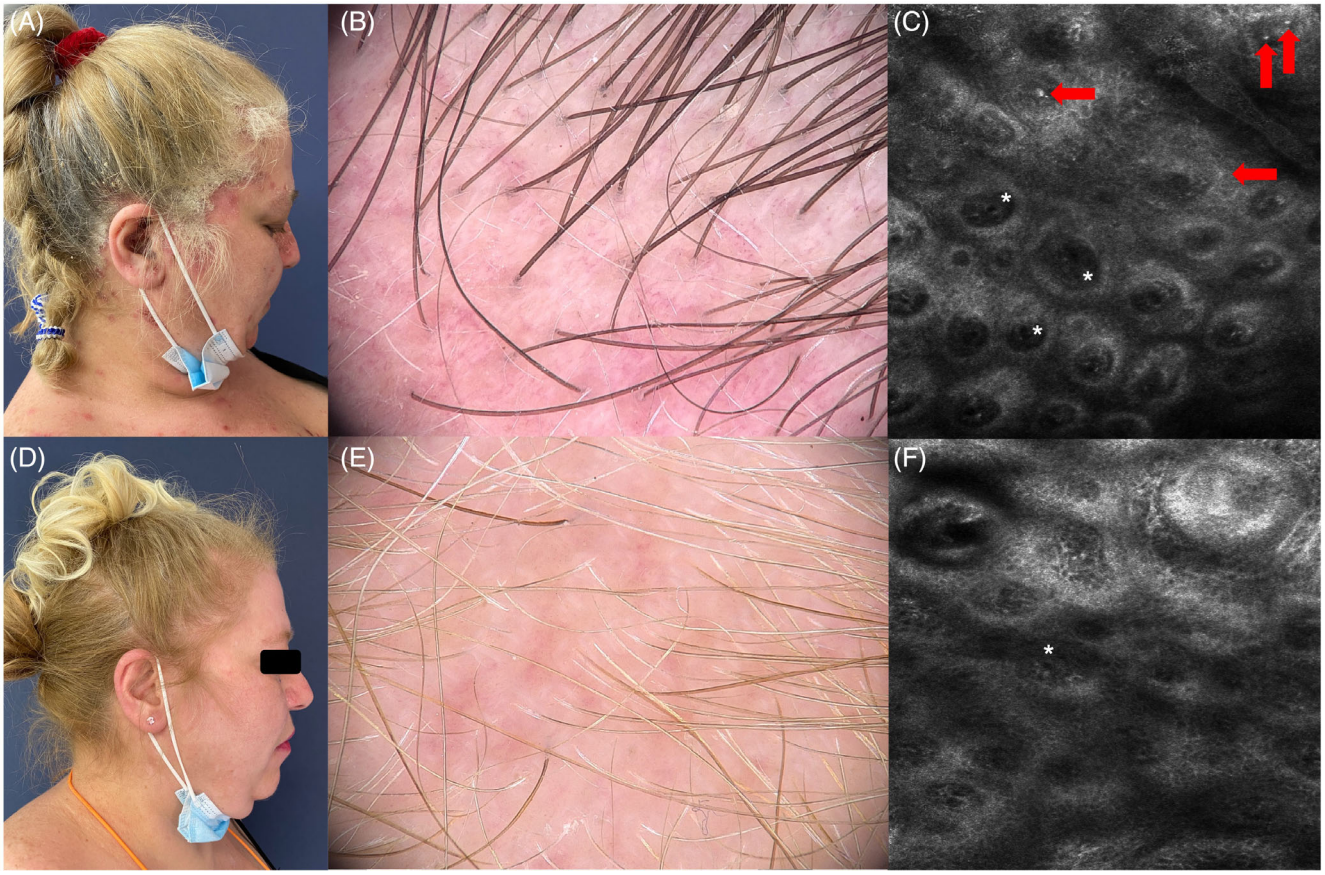

FIGURE 1 Case 1. (A) Baseline clinical image of a female patient with severe psoriasis showing erythemathous scaly plaques involving all the scalp. (B) Dermoscopic image of the scalp psoriasis revealing an erythematous background with white interfollicular scales and glomerular and linear blood vessels (Fotofinder ATBM Master, 20×). (C) reflectance confocal microscopy (RCM) picture of the dermal-epidermal junction which exposed nonrimmed, enlarged DPs with tortuous and dilated vessels (*), and few inflammatory cells (red arrow) (VivaCam 3000). (D) Clinical image of the patient at the 12-week follow-up showing an almost complete remission of scalp psoriasis. (E) Dermoscopic examination showed only mild white interfollicular scale with few glomerular blood vessels (Fotofinder ATBM Master, 20×). (F) RCM image revealed a reduction of blood vessels diameter (*), as well as a return to the normal DP configuration (VivaCam 3000). Dermoscopic images (B and E) and RCM images (C and F) have been performed in temporo-occipital area of the head (area behind the ear)

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AUTHOR CONTRIBUTIONS

Dr. Sonia Ocampo-Garza contributed to the conception of the work, data acquisition and interpretation. She drafted the work and she approved the final version to be published. She agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Dr. Matteo Megna contributed to the conception of the work, data acquisition and interpretation. He drafted the work and he approved the final version to be published. He agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Dr. Alessia Villani contributed to the conception of the work, data acquisition and interpretation. Shee drafted the work and she approved the final version to be published. She agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Dr. Elisa Camela contributed to the design of the work, data interpretation and she revised the work critically for important intellectual content. She approved the final version to be published and she agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Professor Gabriella Fabbrocini contributed to the design of the work, data interpretation and she revised the work critically for important intellectual content. She approved the final version to be published and she agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Dr. Eleonora Cinelli contributed to the conception of the work, data acquisition and interpretation. She drafted the work and she approved the final version to be published. She agreed to be accountable for all

aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

ETHICS STATEMENT

The Declaration of Helsinki was respected thorough the whole study, and informed consent was obtained and signed by each patient before the study beginning.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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