

Tumour-stage mycosis fungoides regressing with milia and pustules after total skin electron beam therapy

Editor

A healthy 66-year-old man presented with a three-year history of a skin eruption, initially treated as psoriasis without response. A biopsy was subsequently performed that was consistent with mycosis fungoides (MF). This diagnosis was confirmed with a positive T-cell gene rearrangement. The patient was referred to our institution for management of tumour-stage MF. Due to widespread skin involvement (approximately 80% body surface area) and advanced stage, the patient was treated with total skin electron therapy (TSET). He received 36Gy in 24 fractions of 1.5Gy each using the Stanford technique. This resulted in significant clinical improvement.

Close skin examination 2 months after TSET revealed numerous pustules in the area of the resolving tumours (Fig. 1). The pustulosis was subsequently treated with tretinoin 0.025% ointment with improvement.

Milia formation following resolution of blistering diseases such as bullous pemphigoid has been well described.^{1–3} A similar, although uncommon, phenomena consisting of milia formation has been documented in the recovery phase of MF treated with topical nitrogen mustard with systemic acitretin⁴ and photochemotherapy.⁵ To our knowledge, no reports have documented development of pustules in treatment of MF with TSET. While the mechanism for the development of milia and pustules in treated MF is not known, it has been hypothesized that eccrine duct occlusion could be a contributing factor. This occlusion may be a direct result of the regression of MF or from

occlusion with topical nitrogen mustard or systemic acitretin.^{4,5} There are also reports of acne vulgaris developing in areas of the skin treated with radiation,⁶ although this is unlikely aetiologic in our reported patient because the pustules were only evident in areas of regressing tumour, sparing uninvolved skin.

It is important to recognize this uncommon entity for several reasons. First, proper identification of this condition can eliminate other differential considerations including miliaria rubra, infection and pustular drug reaction. Milia and pustule formation, when appreciated at the onset of treatment, could also be an early sign of regressing MF and therefore portend a favourable response to TSET. Finally, correct identification can lead to proper treatment with topical tretinoin, which was of benefit to our patient.

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References

- 1 Tsuruta D, Brzezinski P, Koga H, Ohata C, Furumura M, Hashimoto T. Bullous pemphigoid with prominent milium formation. *Acta Dermatoven-erol Croat* 2013; **21**: 35–38.
- 2 Uchida S, Oiso N, Koga H *et al.* Refractory bullous pemphigoid leaving numerous milia during recovery. *J Dermatol* 2014; **41**: 1003–1005.
- 3 Hisa T, Goto Y, Taniguchi S, Nakanishi T, Kakudo K, Takigawa M. Post-bullous milia. *Australas J Dermatol* 1996; **37**: 153–154.
- 4 Mori T, Ohtsuka M, Hanami Y, Yamamoto T. Non-folliculotropic Milia in a treated case of mycosis fungoides: a Rare Occurrence. *Indian J Dermatol* 2015; **60**: 424.
- 5 Kalayciyan A, Oguz O, Demirkesen C, Serdaroglu S, Kotogyan A. Milia in regressing plaques of mycosis fungoides: provoked by topical nitrogen mustard or not? *Int J Dermatol* 2004; **43**: 953–956.
- 6 Hubiche T, Sibaud V. Localized acne induced by radiation therapy. *Dermatol Online J* 2014; **20**. pii: doj_21545.

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Fig. 1 (a) The patient's back 2 months after TSET for tumour-stage MF. (b) Closer inspection reveals multiple milia and cystic pustules within the resolving MF tumours and plaques.

Guideline-based clinical decision support in acne patients receiving isotretinoin: improving adherence and cost-effectiveness

Editor

Clinical practice guidelines have proven to be a tool for condensing the overwhelming quantity of (new) medical knowledge. However, there are barriers to implementation and