COMMENTARY

Commentary to "Mogamulizumab-induced photosensitivity in patients with mycosis fungoides and other T-cell neoplasms" by Y. Masuda *et al.*

The number of biologics is steadily increasing. Not only in dermatology but perhaps more important in oncology. Side-effects, and, in particular, skin-related adverse events, are not uncommon. Notoriously, the awful acneiform rash with erlotinib and similar epidermal growth factor receptor inhibitor comes in mind. Photosensitivity has been described for BRAF inhibitors in some cases.[1] As of 2014, there were reports that mogamulizimab can cause serious skin rashes such as Steven–Johnson syndrome[2] and toxic epidermal necrolysis.[3]

In the September issue of the Journal, an interesting paper of Masuda *et al.*[4] reports on mogamulizumab-induced photosensitivity. Four out of seven cutaneous lymphoma patients showed photosensitivity during treatment with mogamulizumab upon simultaneous narrowband UVB phototherapy. One patient out of these four was already published previously.[5] Photosensitivity has also been reported earlier in one case of adult T-cell lymphoma with phototherapy (possibly narrowband UVB) during mogamulizumab.[6] However, these observations do raise some questions.

Mogamulizumab is approved since 2012 for adult T-cell leukaemia–lymphoma and thereafter for cutaneous T-cell lymphoma. PubMed does not find any other reports of photosensitivity in the literature even though there must have been quite a considerable number of patients treated. Could it be that these patients were not treated with concomitant phototherapy and as such supposed photosensitivity has escaped detection?

It is well known that cutaneous lymphoma lesions may flare during the first phototherapy sessions. Another not uncommon specific finding in the initial phase of UV treatment is the emergence of previously invisible subclinical erythematous and eczematoid lesions in some patients. This could be misinterpreted as photosensitivity or UV overdose.[7] From the photographs provided, it is difficult to classify these patches as phototoxic reactions. The lesions shown exhibit sharp circinate borders to non-affected skin, and they do definitely not resemble chronic actinic dermatitis clinically. To me, these lesions rather look like newly arisen cutaneous lymphoma lesions.

Moreover, in cutaneous lymphomas, the threshold for erythema quite often appears to be unusually low.[8,9] Phototesting before the initiation of Mogamulizumab has not been performed in the reported patients.

Thus, there is no convincing explanation for a true drug-induced photosensitivity. Whether a decrease in Foxp3+ regulatory T cells (Tregs) in the suspected photosensitivity lesions compared with the lymphoma lesions[4,5] may be responsible, could perhaps be one of several hypotheses but this awaits objective evidence.

Conflicts of interest

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Linked article: This is a commentary on Y. Masuda et al., pp. 1456–1460 in the previous issue. To view this article visit https://doi.org/10.1111/jdv.14797

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