Atypical photosensitivity associated with triflusal

Lorena Martínez Leboráns, Laura Cubells Sánchez, Violeta Zaragoza Ninet and Amparo Pérez Ferriols

Department of Dermatology, Valencia University General Hospital, Valencia, 46014, Spain

doi:10.1111/cod.12609

Key words: case report; drug eruption; photosensitivity; triflusal.

Triflusal is an antithrombotic agent that prevents platelet aggregation. In the literature, rare photosensitivity reactions and eczema caused by triflusal have been described.

Case Report

An 87-year-old man was referred to our photobiology unit in August 2015 for the diagnosis and treatment of eczematous lesions involving the sun-exposed areas (face, dorsal aspects of hands, and feet) that he had suffered from for >5 years. He had suffered from hypertension, and had experienced a cerebrovascular accident 10 years previously. Since then, triflusal (300 mg twice daily) has been prescribed (as the only therapy).

On examination, facial erythema with non-adhering desquamation, marked ectropion, loss of skin folds and microstomia was noted (Fig. 1). The dorsa of the hands and feet showed discrete erythema only in photo-exposed areas. A lesional skin biopsy showed marked actinic elastosis, fibrosis of the superficial dermis, and a discrete chronic perivascular infiltrate with hyperkeratosis. A blood test was performed to rule out diet-related deficiency and autoimmune diseases, and we consulted with the patient's general physician concerning possible triflusal replacement. Phototesting was performed on the first visit with a 150-W xenon solar simulator. The doses used were 7–33.3 mJ/cm^2 ultraviolet (UV) B, and 5–10 J/cm^2 UVA, respectively. There was no immediate response to either UVB or UVA. Twenty-four hours later, the minimal erythema dose (MED) for UVB (UVB-MED) was 7 mJ/cm^2 [corresponding to Fitzpatrick skin phototype II, pathological value <19 mJ/cm^2 (1)], and there was no response to UVA.

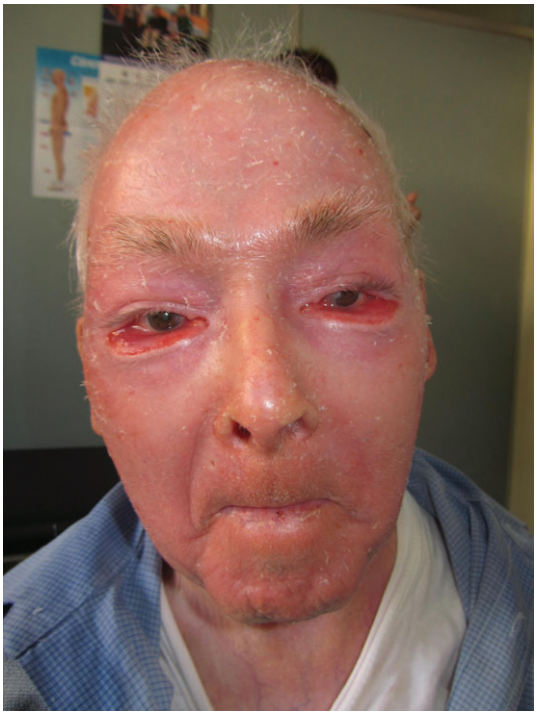

Fig. 1. First consultation. Facial erythema with non-adhering desquamation, marked ectropion, and loss of skin folds.

Three months after triflusal discontinuation, the rash had cleared, with improvement of the ectropion and the appearance of patches or repigmentation (Fig. 2). A new phototest was performed, with an increase in the UVB-MED to 18.2 mJ/cm^2. Patch and photopatch testing with UVA (test dose of 5 J/cm^2, with the European Photopatch baseline series from Chemotechnique Diagnostics, Vellinge, Sweden together with triflusal 1% pet.) showed identically positive reactions in both the non-irradiated and the irradiated triflusal patches at D1 post-irradiation (Fig. 3). Additional photopatch testing with sub-MED doses of UVB (13.5 mJ/cm^2)

Correspondence: Lorena Martínez Leboráns, Servicio de Dermatología, Consorcio Hospital General Universitario de Valencia Avd. Tres Cruces, 2 ES-46014 Valencia, Spain. Tel: +346 2085 3678. E-mail: lorenamarleb@gmail.com

Conflicts of interest: The authors declare no conflict of interests.

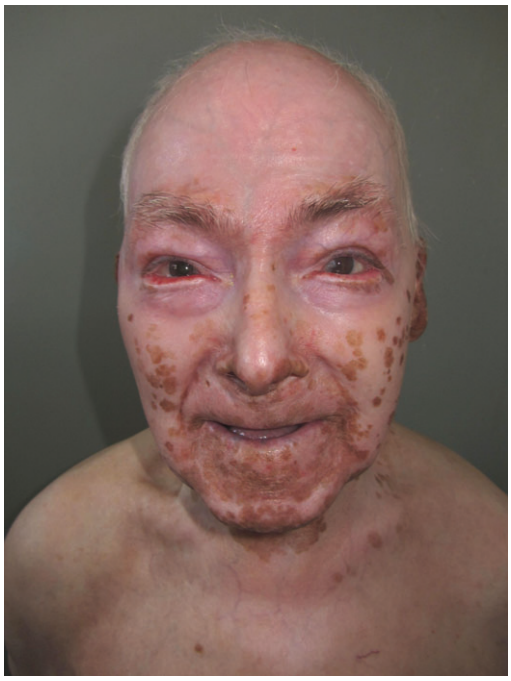

Fig. 2. Five months after drug withdrawal. Ectropion and erythema improvement with hyperpigmented patches.

showed an erythematous and oedematous reaction on D1 post-irradiation.

We performed triflusal patch tests in 32 control patients to excluded irritancy of the 1% pet. test preparation, and did not observe any reaction. Upon further follow-up, the patient continues to improve, and we finally diagnosed a systemic UVB-photoaggravated allergic reaction.

Discussion

Triflusal is an antiplatelet drug that is structurally related to acetylsalicylic acid. It is used for the prophylaxis of thromboembolic diasease (2). Both triflusal and its active metabolite [3-hydroxy-4-trifluoromethylbenzoic acid (HTB)] have been shown to be photosensitizing in 4 patients reported up to now (3–6). The maximum action spectrum appears to be at UVB wavelengths, as for griseofulvin or diphenhydramine. The first case was described in 1987 by Serrano et al., suggesting that the photosensitizing capacity could be related to the trifluoromethyl group of HTB. The authors base this theory on the presumed release of free radicals in molecules containing halogenated groups after sun exposure (5). However, the fact that few cases have been reported, the histology findings in the published patients and the results of the photopatch tests suggest that an immunological response may play a role in these reactions.

In our case, the non-irradiated patch test with triflusal yielded a positive response at D1, like the UVA-irradiated and UVB-irradiated patches. This was unlike to the previously reported cases, who all had negative results on the non-irradiated patches. Because of this observation, an irritant response was ruled out with the 32 control

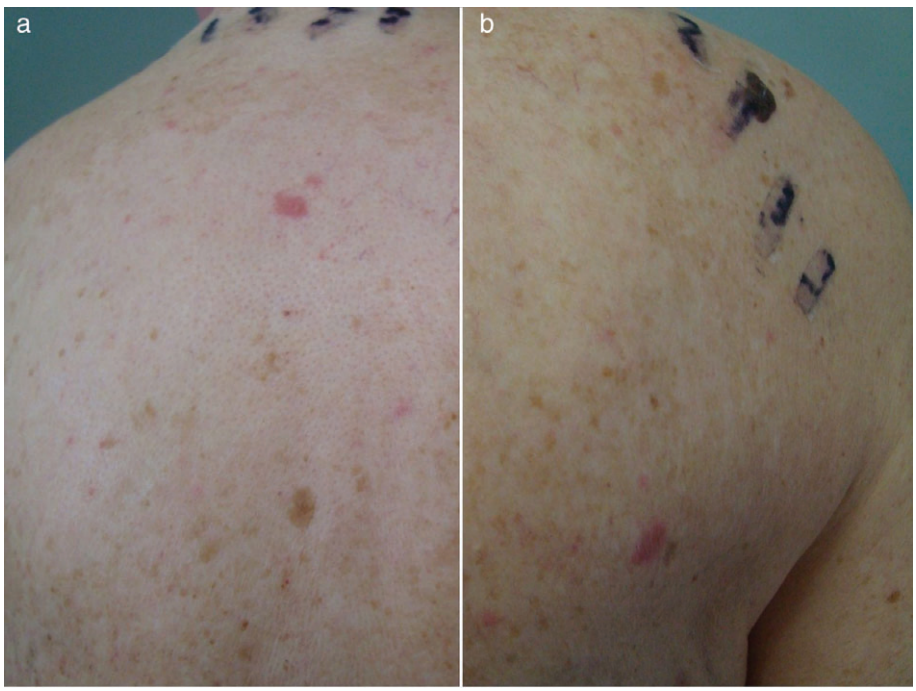

Fig. 3. (a) Patch reaction with triflusal 1% pet. at D2. (b) Photopatch testing with ultraviolet A (with the European Photopatch baseline series) together with triflusal 1% pet.) showed positive reactions to triflusal at D2 post-irradiation.

patients tested with triflusal 1% pet. On the other hand, a single report from Sánchez Martin et al. showed widespread eczema caused by triflusal, as confirmed by patch testing, but unrelated to sun exposure and without further photobiology diagnostic work-up.

In conclusion, we report a new, atypical case of triflusal photosensitivity reaction with clinical improvement after drug withdrawal, confirmed by MED phototesting. We wish to emphasize the striking aspect of our patient, probably owing to the long-standing cutaneous lesions. Our case is, to the best of our knowledge, the first case with positive patch and photopatch reactions after triflusal intake, and we cannot explain why the lesions were present only on sun-exposed areas.

References

1 Pérez-Ferriols A, Aguilera J, Aguilera P et al. Determination of minimal erythema dose and anomalous reactions to UVA radiation by skin phototype. *Actas Dermosifiliogr* 2014: **105**: 780–788.

2 McNeely W, Goa K. Triflusal. *Drugs* 1998: **55**: 823–833.

3 Serrano G, Aliaga A, Planells I. Photosensitivity associated with triflusal (Disgren®). *Photodermatology* 1987: **4**: 103–105.

4 Lee A Y, Yoo S H, Lee K H. A case of photoallergic drug eruption caused by triflusal (Disgren®). *Photodermatol Photoimmunol Photomed* 1999: **15**: 85–86.

5 Nagore E, Pérez-Ferriols A, Sánchez-Montilla J M et al. Photosensitivity associated with treatment with triflusal. *J Eur Acad Dermatol Venereol* 2000: **14**: 219–221.

6 García-Rodiño S, Espasandín-Arias M, Vázquez-Osorio I, Rodríguez-Granados M T. Photosensitivity associated with systemic triflusal therapy. *Photodermatol Photoimmunol Photomed* 2016: **32**: 113–115.