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Dermatology Practical & Conceptual

Glibenclamide-induced Photoallergic Reaction

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Case Presentation

A 78-year-old female with psoriasis came to our department due to PUVA phototherapy. Following five PUVA sessions (each exposure of 5 J/cm^2), a reaction occurred presenting as intense erythema, followed by lamellar desquamation. According to the data, she had been exposed to the sun every summer during the last 20 years and had had several previous PUVA treatments for psoriasis but had not experienced any kind of skin reaction or sun intolerance. The only medication she had been taking was glibenclamide for the past 20 years. When the reaction occurred, she was treated with parenteral dexamethasone of 8 mg for three consecutive days, followed by oral prednisone 30 mg for five days, 20 mg for five days, and 10 mg for five days as well with topical corticosteroids. She was advised to stop taking glibenclamide and to avoid all other types of sulfonylurea drugs. Avoidance of sunlight, protective clothing, and application of broadband sunscreen with UVA filters were recommended. Patch test and photo patch test to glibenclamide with exposure to 5 J of UVA were done. Despite negative results, glibenclamide was substituted with metformin, and symptoms gradually diminished within the following few weeks, without post-inflammatory hyperpigmentation.

Teaching Point

Photoallergic reaction is a cell-mediated type IV hypersensitivity that occurs due to interaction between the chemical photosensitizer and subsequent exposure to UV radiation, mostly UVA. The reaction is dose-independent, requires prior sensitization, and usually develops days/months after the exposure, sometimes even years [1]. Drugs constitute a major group of photosensitizers. Glibenclamide is a sulfonylurea hypoglycemic drug used for the treatment of type II diabetes [2]. Even though in our patient's photopatch test to glibenclamide was negative, symptoms disappeared within a short time after glibenclamide withdrawal and avoidance of UV radiation. This identified glibenclamide as the culprit drug and suggested the diagnosis of photoallergic reaction. Physicians should be aware that glibenclamide-induced photoallergic reaction can develop many years after starting the medication; taking detailed medical history of a patient is therefore very important.

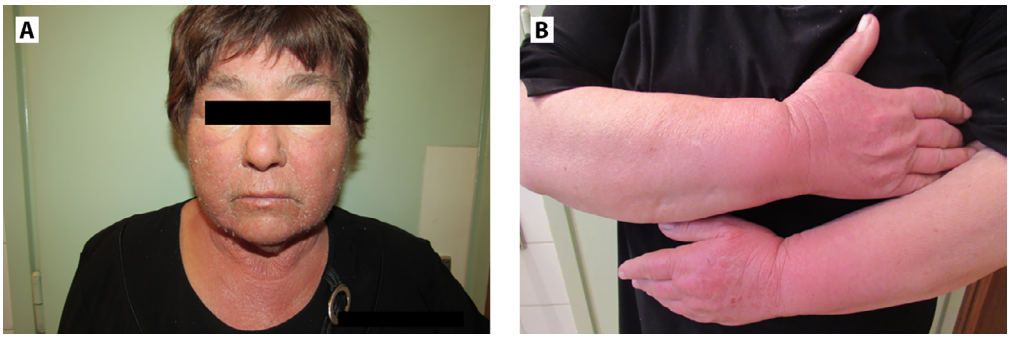

Figure 1. (A, B) Development of intense erythema with lamellar desquamation on the face, neck, and upper extremities after long-term glibenclamide use and subsequent exposure to phototherapy.

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