



First case of skin allergy to pregabalin with positive patch test reaction

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KEYWORDS: allergy, case report, patch tests, pregabalin, rash

Pregabalin (PG) is an antiepileptic drug with a structure similar to gabapentin, providing analgesic effects in patients with neuropathic conditions.¹

CASE REPORT

A 51-year-old female patient was treated with PG (Lyrica) at 25 mg/day for 3 weeks and at 75 mg/day during a fourth week. After a month of treatment, a maculopular rash developed in the nape, neck, ears, arms, knees and ankles that improved after the withdrawal of the drug and administration of deflazacort 30 mg for 5 days. A biopsy of skin lesions showed superficial perivascular lymphocytic dermatitis with some eosinophil and some lymphocyte permeation in the epidermis.

Patch tests with PG (Lyrica) 5% pet. and aq., respectively, in the dorsal region of the left arm were read on day (D) 2 and D4. These remained negative; however, on D3, the patient noted a rash similar to the rash that developed when she was taking PG, particularly on the back of the right forearm. A patch test with placebo (pet.) gave negative results on D2 and D4. A subsequent patch test with PG (5% pet.) on the right forearm where the rash reappeared gave positive results in terms of a ++ reaction on D2 and a +++ reaction on D4, whereas a similar lesional patch test with PG aq. on the right forearm remained negative. The diagnosis of erythematous maculopapular rash caused by type IV hypersensitivity to PG was made.

DISCUSSION

Adverse reactions to PG are usually dose-related²; in our case, the rash appeared after the dose had been increased. Five cases with skin reactions that were not biopsied have been published (Supporting Information Table S1)¹⁻⁵; in our case, the results of the biopsy support the diagnosis of a cutaneous adverse drug reaction.

It is of note that, similarly to what is seen in fixed drug eruption testing, where, commonly, patch testing gives positive results only in the area where the rash appears, owing to activation of intraepidermal CD8⁺ memory T cells at these sites,⁶ our patient showed a clear positive reaction only on lesional skin. Lacosamide, a third-generation

antiepileptic drug, may be a useful alternative to PG,⁷ if tolerance is confirmed prior to prescription.

CONFLICTS OF INTEREST

The authors have no conflicts of interest to report.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

How to cite this article: Gómez Torrijos E, Moreno Lozano L, Extrmiera Ortega AM, Gonzalez Jimenez O, Gratacós Gómez AR, Garcia Rodriguez R. First case of skin allergy to pregabalin with positive patch test reaction. *Contact Dermatitis*. 2019;81:78. <https://doi.org/10.1111/cod.13249>

Table 1- Allergy to pregabalin

Authors	Age	Sex	Skin lesions	Test used to identify the drug	Days of treatment	Prognosis
Smith TL et al <i>Ann Pharmacother.</i> 2008	35	Female	Maculopapular rash	None	7	Mild
Yoshioka et al <i>J Clin Dermatol.</i> 2013	44	Male	Erythematous oedema	Lymphocyte stimulation test: positive Patch test: negative	10	Mild
Akiha Inoue et al <i>Allergology Intern</i> 2016	86	Male	Maculopapular rash	Lymphocyte stimulation test: positive Patch test: negative	5	Mild
Bamanikar A et al <i>Indian J Pharmacology</i> 2013	40	Male	Purpuric rash and exfoliative lesions	World Health Organization Uppsala Monitoring Center scale and Naranjo's algorithm	45	Moderate-severe
Ortega-Camarero	65	Female	Angiooedema, erythematous maculopapular rash	Skin prick tests:negative Intradermal tests:negative Patch tests:negative Placebo controlled oral challenge test:positive	Not specified	Mild
Our case report	51	Female	Maculopapular rash	Skin prick tests and Intradermal tests:not done. Lesional patch tests: positive Non-lesional:negative	60	Mild