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Research Article

Immediate Hypersensitivity Reaction Following Patch Test to Celecoxib

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Abstract

Patch-tests (PT) are usually safe. Complications are quite rare, and immediate anaphylactoid reactions are exceptional We report a case of a 38-year-old woman, who presented late toxidermia after celecoxib use, and then was explored by PT three months later. This PT was performed with celecoxib diluted to 30%. The patient developed twenty minutes later general itchy erythema, which regressed in an hour, under anti-histamine treatment. This case leads to reconsider possible immediate complications after PT and therefore increase vigilance for at least 30 minutes after patchingPT: Punch Tool; VSS: Vancouver Scar Scale; PDO: Polydioxanone.

Keywords: Patch Test; Immediate Hypersensitivity Reaction; Celecoxib

Introduction

Patch-tests (PT) are helpful investigations to determine the drug involved in the genesis of cutaneous delayed hypersensitivity reaction. PT are considered safe tests and complications are quite rare. Immediate anaphylactoid reactions are exceptionally reported with these tests.

Materials and Methods

We report the case of a patient who was explored by PT for toxidermia and who presented an immediate reaction following the patch application.

This case was notified on August 2nd 2017 and was analyzed according to the French updated method for the causality assessment of adverse drug reactions [1].

Results and Discussion

Mrs. H.E., a 38-year-old women, with no notable medical history, was prescribed celecoxib for articular pain. One week after the start of treatment with celecoxib, he presented a generalized erythema (Figure 1). Celecoxib was withdrawn, and anti-histaminic treatment was started. The evolution was marked by the regression of the symptomatology. Three months later, a patch test (PT) with celecoxib diluted to 30% in petroleum was performed, after patient consent. Twenty minutes after patch application, the patient developed a sensation of warmth and general erythema with pruritus. The patch was taken off immediately. A dermal vesicle was objectified at the site of the patch.

General erythema regressed in an hour, under anti-histaminic treatment. Twenty-four hours later, patch site control, revealed multiple vesicles and persistence of a localized pruritus (Figure 2).

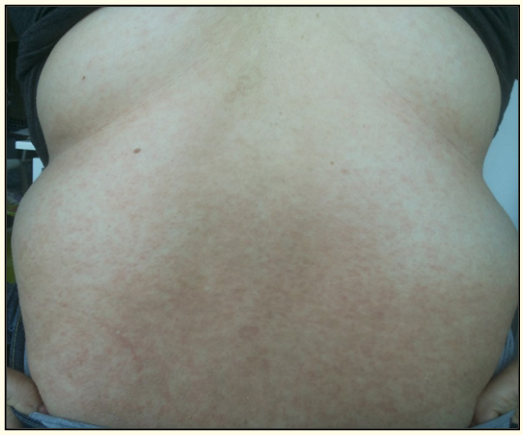

Figure 1: Generalized erythema induced by celecoxib.

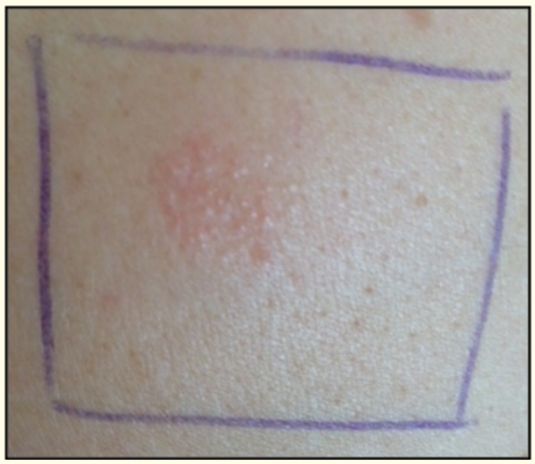

Figure 2: Presence of multiple vesicles at the patch site.

This case was assessed as I5 according to the French updated method for the causality assessment of adverse drug reactions [1].

Celecoxib is a selective cox-2 nonsteroidal anti-inflammatory drug (NSAID) which is overall safe and well-tolerated compared to non-selective NSAID [2,3].

However, serious skin reactions, including toxic epidermal necrolysis [4], erythema multiform [5], acute generalized exanthematous pustulosis [6] and Sweet's syndrome [7], have been very rarely reported in association with the use of celecoxib. The risk occurrence of these side effects seems to be greater at the start of treatment, the onset of these effects occurring in the majority of cases during the first month of treatment. Serious hypersensitivity reactions (anaphylaxis and angioedema) have also been reported in patients receiving celecoxib [8].

The occurrence of immediate reactions following explorations by PTs, constitutes an exceptional incident. Since it is about the exploration of delayed-cell-mediated hypersensitivity reaction [9], side effects are usually expected after 48 hours. It is difficult to know for these immediate reactions, whether they are true allergic reactions, or irritative reactions, or non-specific histamine release reactions [10].

Moreover, some authors even suggest that anxiety and stress can enhance and prolong allergic symptoms. In fact, Janice., *et al*. conducted a study of 28 patients, and concluded that anxiety increased wheal diameters during skin PTs [11].

The other particularity to be noticed in our case is that the administration of antihistamines did not prevent the positivity of the PT. Indeed, the role of antihistamines in the negativation of PTs is still not confirmed, although it is usually recommended to delay PTs until one week of stopping the antihistamine treatment [12].

Conclusion

Although exceptional, immediate complications of patch testing still possible and require close monitoring for at least 30 minutes after performing PTs.

Conflict of Interest

We declare that we do not have any financial interest or any conflict of interest.

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