

Utility of patch testing for the diagnosis of delayed-type hypersensitivity reactions to clindamycin

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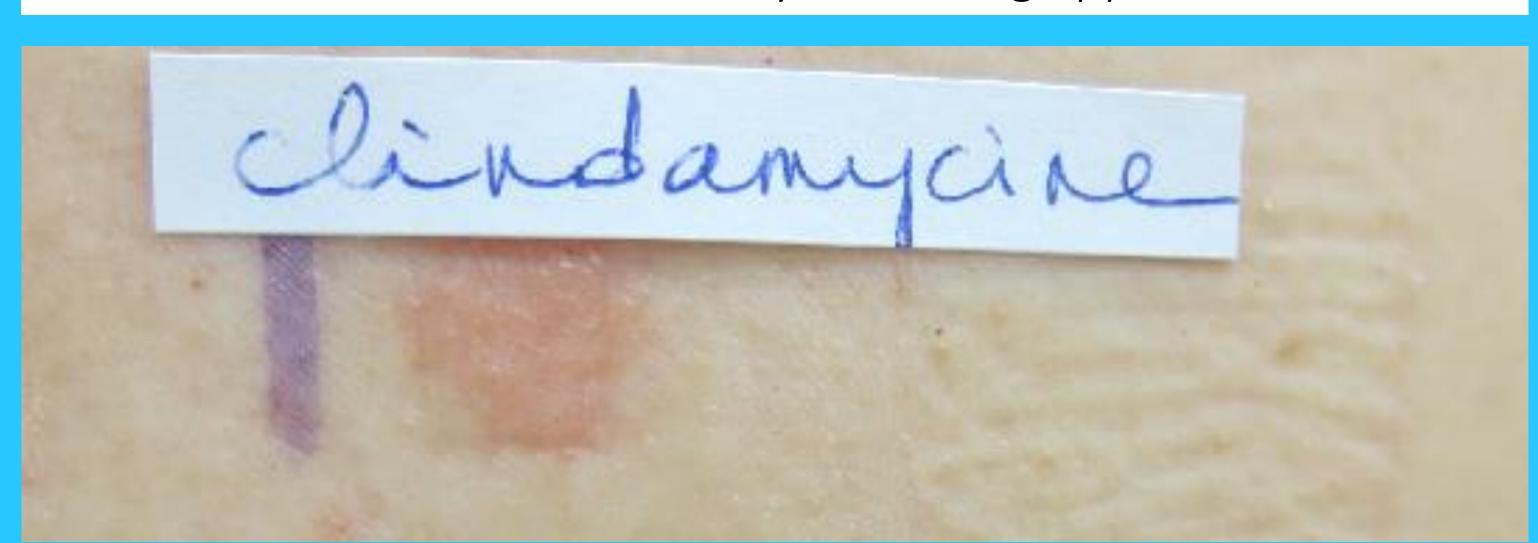
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Introduction

Patch testing is suggested as a useful tool to diagnose delayed-type drug hypersensitivity reactions (DTHs). However, the sensitivity depends on the clinical pattern of the drug eruption and on the pharmacological class of the responsible drug. We here report about 9 patients with DTHs following the administration of clindamycin, confirmed with a positive patch test.

Methods

Patch tests were performed with clindamycin hydrochloride at 10% in petrolatum, prepared lege artis from the powder of the commercialized drug (Dalacin C®, Pfizer, Brussels, Belgium). Results were assessed 2 and 4 days following application.



Results

In the 20-year period between 1999 and 2019, 9 patients investigated in our center for DTHs following treatment with clindamycin, mostly in association with other anti-infective drugs, showed a positive patch-test reaction to it (see **Table 1**). Two of them showed other relevant positive patch-test reactions, i.e. to pseudoephedrine, and to ampicillin and amoxicillin, respectively. Seventy-eight control patients tested negatively to clindamycin.

<u>Left</u>: Positive patch-test reaction to clindamycin at day 2 reading in patient 5

<u>Under</u>: Table 1. Clinical data of patients with a positive patch-test reaction to clindamycin (MPE= maculopapular exanthema, AGEP= acute generalized exanthematous pustulosis, DRESS= drug reaction with eosinophilia and systemic symptoms, NP= Not performed,

? = patient does not remember and no additional information found in e-records)

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7 Peritonsillar abscess Jun 2016 DRESS Oct 2018 + + Benzylpenicillin - Clindamycin + Amoxicillin + Cefuroxim - 8 P. 88 Erysipelas Sep 2018 AGEP Dec 2019 - + / Clindamycin NP Amoxicillin -										βlactams -
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Amoxicillin -										Cefuroxim -
	8	♀, 88	Erysipelas	Sep 2018	AGEP	Dec 2019	-	+	/	Clindamycin NP
Cefuroxim -										Amoxicillin -
										Cefuroxim -
9 ♀, 64 Dental implant Aug 2019 MPE Nov 2019 + + /	9	♀, 64	Dental implant	Aug 2019	MPE	Nov 2019	+	+	/	NP

Conclusion

Patch testing can be helpful to identify or confirm the imputability of clindamycin in maculopapular exanthema, drug rash with eosinophilia and systemic symptoms, and acute generalized exanthema pustulosis, particularly in patients who have used several concomitant drugs. Although the response rate has been reported to be rather low (15-30%), we recommend patch testing as a non-invasive first step in the diagnosis of DTHs to clindamycin, since prick- and intradermal testing alone has limited diagnostic value and implies a risk of adverse local as well as systemic reactions. Patch-test negative alternative drugs, such as flucloxacillin or amoxillin-clavulanic acid, should be identified by subsequent prick, intradermal, and eventually oral provocation testing.