Ozenoxacin-Induced Contact Dermatitis With Tolerance to Ciprofloxacin

Otero-Fernández MN[1], Laffond-Yges E[1,2,3,4], Castillo-Loja RM[1,2], Cabrera-Núñez A[1], Mazoteras-Martínez ME[1], Muñoz-Bellido FJ[1,2,3,4], Dávila I[1,2,3,4]

[1]*Complejo Asistencial Universitario de Salamanca, Salamanca, Spain*

[2]*Instituto de Investigación Biomédica de Salamanca (IBSAL), Salamanca, Spain*

[3]*Departamento de Ciencias Biomédicas y del Diagnóstico, Universidad de Salamanca, Salamanca, Spain*

[4]*Redes de Investigación Cooperativa Orientadas a Resultados en Salud (RICORS RD21/0002/0054), Red de Enfermedades Inflamatorias (REI), Instituto de Salud Carlos III, Madrid, Spain*

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Ozenoxacin is a new nonfluorinated quinolone antimicrobial with high bactericidal potency against *Staphylococcus* and *Streptococcus* species. It has been approved for topical treatment of impetigo in adults and children aged over 6 months [1-3]. Clinical trials have revealed an excellent tolerance and safety profile [1-4]. Cross-reactivity with other quinolones is unknown.

We present the case of a 73-year-old woman who, after receiving topical treatment with Ozanex for an infected wound, gradually developed pruritic dermatitis around the treated area. Ozanex contains ozenoxacin 1%, macrogol stearate, ethylene glycol monopalmitostearate, oleoyl macrogol glycerides, octyldodecanol, stearyl alcohol, propylene glycol, and benzoic acid. One week after discontinuing Ozanex, the patient was prescribed topical Menaderm Simple (beclomethasone), and the reaction subsided 8 days later. Importantly, this was the patient's first exposure to Ozanex. Written informed consent was obtained from the patient for the allergy work-up and publication of this report.

Patch tests were performed with Ozanex and Menaderm Simple as-is, the standard series (T.R.U.E. test), and available vehicles (stearyl alcohol [30% pet], benzyl alcohol [1% pet], benzoic acid [5% pet], propylene glycol [5% pet]). To assess contact sensitization to macrogols, patch tests were performed with polyethylene glycol 400 [100%], polyethylene glycol 4000 [50%], Tween 40 [10% pet], and Tween 80 [10% pet]. Sensitization to octyldodecanol was ruled out due to tolerance to topical application of products containing that substance. Patch tests were positive exclusively for Ozanex at 48 (++) and 96 (++) hours.

To assess cross-reactivity with other quinolones, patch tests were performed with ciprofloxacin (10% pet), levofloxacin (20% pet), and moxifloxacin (10% pet). All the results were negative. A challenge test with oral ciprofloxacin 500 mg showed systemic tolerance at therapeutic doses.

To our knowledge, we present the first published case of delayed hypersensitivity to ozenoxacin. Sensitization to excipients was ruled out as a cause of the reaction, and irritant dermatitis seems highly unlikely owing to the persistent positivity of patch tests at 96 hours. Occlusive patch testing with 1% and 2% ozenoxacin and with repeated doses in healthy volunteers has shown a high tolerability profile [1,2,4]. Furthermore, no cross-reactivity between ozenoxacin and ciprofloxacin has been found.

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Conflicts of Interest

In the last 3 years, Ignacio Dávila has received payment for lectures, including service on speaker's bureaus from Allergy Therapeutics, ALK, AstraZeneca, Chiesi, Diater, GSK, Leti, Novartis, and Sanofi. He has also received fees for consultancy from Allergy Therapeutics, ALK-Abello, AstraZeneca, GSK, MSD, Novartis, and Sanofi and grants from ThermoFisher Diagnostics, ISCIII, and Junta de Castilla y León. The remaining authors declare that they have no conflicts of interest.

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María Elena Laffond-Yges
Servicio de Alergología, Complejo Asistencial Universitario de Salamanca
Paseo de San Vicente, 58
37007 Salamanca, Spain
E-mail: mlaffond@saludcastillayleon.es

