

Fixed drug eruption caused by etoricoxib with tolerance to celecoxib and parecoxib

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Most adverse cutaneous reactions to cyclooxygenase-2 inhibitors have been attributed to celecoxib, rofecoxib, or valdecoxib. The main reactions described include urticaria/angioedema, Sweet's syndrome, vasculitis, erythema multiforme, Stevens–Johnson syndrome, toxic epidermal necrolysis, and maculopapular rash (1). We

report a case of fixed drug eruption (FDE) caused by etoricoxib.

Case Report

Several hours after taking 60 mg of etoricoxib, a 66-year-old female developed round erythematous, well-circumscribed vesicular plaques on her right leg and right arm. She had been prescribed etoricoxib for lumbar pain. She did not develop fever or other constitutional symptoms. No systemic abnormalities were found on physical and routine laboratory examination. Plaques disappeared in 1 week without treatment, but left hyperpigmented lesions that persisted for 3 months. The patient had previously tolerated the drug.

Discussion

Patch tests were performed 2 months after the reaction, with etoricoxib and celecoxib 10% pet. and parecoxib 20 mg/ml in saline solution (allergen occlusion for 2 days in Curatest® on Hypofix® tape; Lohmann and Rausher International, Neuwied, Germany), all three on healthy skin and on areas of previous lesions. An erythematous papular reaction was observed at D2 and D4 with etoricoxib exclusively on the area of a previous lesion (Fig. 1). Two months later, a single blind placebo-controlled oral provocation with celecoxib (cumulative dose 200 mg) and a subsequent intravenous challenge test with parecoxib (cumulative dose 40 mg) showed no positive reactions on normal or lesional skin.

FDE is a distinct variant of drug-induced dermatosis that recurs at a fixed site after the administration of the causative drug. More than 100 drugs have been found to cause FDE, but only 5 cases of etoricoxib-related FDE have been reported (1–4).



Fig. 1. Patch test with etoricoxib on an area of a previous lesion.

As is generally observed, patch testing in FDE is most sensitive at the site of a previous lesion, as in the present case. Celecoxib, valdecoxib and its prodrug parecoxib contain a sulfonamide moiety that would involve the risk for cross-reactivity in patients. However, etoricoxib is slightly different; it is a monoaryl substituted bipyridine, and has a three-ring configuration that is superimposable onto the diaryl heterocyclic pharmacophore (5); this could explain our patient's tolerance to celecoxib and parecoxib.

References

- 1 Augustine M, Sharma P, Stephen J, Jayaseelan E. Fixed drug eruption and generalised erythema following etoricoxib. *Indian J Dermatol Venereol Leprol* 2006; **72**: 307–309.
- 2 Andrade P, Goncalo M. Fixed drug eruption caused by etoricoxib – 2 cases confirmed by patch testing. *Contact Dermatitis* 2011; **64**: 118–120.
- 3 Calistru A M, Cunha A P, Nogueira A, Azevedo F. Etoricoxib-induced fixed drug eruption with positive lesional patch tests. *Cutan Ocul Toxicol* 2011; **30**: 154–156.
- 4 Duarte A F, Correia O, Azevedo R, do Carmo Palmares M, Delgado L. Bullous fixed drug eruption to etoricoxib – further evidence of intraepidermal CD8+ T cell involvement. *Eur J Dermatol* 2010; **20**: 236–238.
- 5 Goodman L S, Brunton L L, Chabner B, Knollmann B C. *Goodman & Gilman's the Pharmacological Basis of Therapeutics*, 12th edition; New York, McGraw-Hill Medical, 2011.