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Non-pigmenting and pigmenting fixed drug eruptions due to clarithromycin

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Non-pigmenting fixed drug eruption (NPFDE) was first described by Shelley et al. in 1987.¹ Here, we report the first case of a combined NPFDE and pigmenting fixed drug eruption (PFDE) due to clarithromycin.

Case Report

A 38-year-old woman suffered from pruritic eruptions on the forehead and lower back after taking clarithromycin and carbocisteine for a respiratory infection. After 6 months, she again developed a pruritic erythema on the forehead and the back, as well as on both upper eyelids (**Figure 1A**), on the second day that she was again taking clarithromycin and carbocisteine. Following treatment with topical corticosteroids, and discontinuation of the two drugs, the lesions on the eyelids and forehead fully healed in 2 weeks time. However, a well-defined, dark brown, circular macule, surrounded by ill-defined light-brown macules, persisted on the lower back (**Figure 1B**). 48 hours closed patch tests using Finn Chambers[®] on Scanpor[®] tape were performed on both normal and previously involved skin (i.e., on the dark brown macule of the lower back), with powdered clarithromycin and carbocisteine tablets (both 30% pet.), showing, however, negative results at 2,

3 and 9 days. Subsequently, a graded oral provocation test was performed using a clarithromycin tablet (200 mg). Four hours after taking 1/10 tablet the patient suffered from pruritus on the back. The next day, 4 hours after taking 1/3 tablet, pruritic sensations re-appeared on the back, as well as on the left upper eyelid. The day after, the large dark brown macule on the lower back became much darker, and this particular lesion, as well as the light brown macules surrounding it, also developed an erythematous hue (**Figure 1C**). Moreover, a pruritic erythema was now also observed on the left upper eyelid, and on the left side of the forehead. Two weeks later, the lesions on the left eyelid and left forehead had completely disappeared, whereas the lesions on the back still showed a residual pigmentation which only started to fade eight months later. An additional oral provocation test with carbocisteine tablets (500 mg, a single tablet taken after every meal for two days) yielded negative results.

Discussion

NPFDE is characterized by erythematous plaques that occur and re-occur on the same location, but regress without pigmentation in 2–3 weeks time.¹ In

the case described here, the erythema on the upper eyelid and the forehead could be considered NPFDE. However, the lesions on the lower back were compatible with PFDE. Some cases of PFDE induced by clarithromycin have been reported²⁻⁵. However, to the best of our knowledge, this is the first report of a co-existing NPFDE and PFDE due to this particular drug. The clinical difference between PFDE and NPFDE might rely on the histological presence or absence of vacuolar alteration of the epidermal basal layer; however, skin biopsies could not be performed in our case.

As evidenced by our case, PFDE may sometimes present as rather ill-defined dark to light brown macules, and, whenever a typical PFDE is observed, one may also need to consider the possible co-existence of a NPFDE.

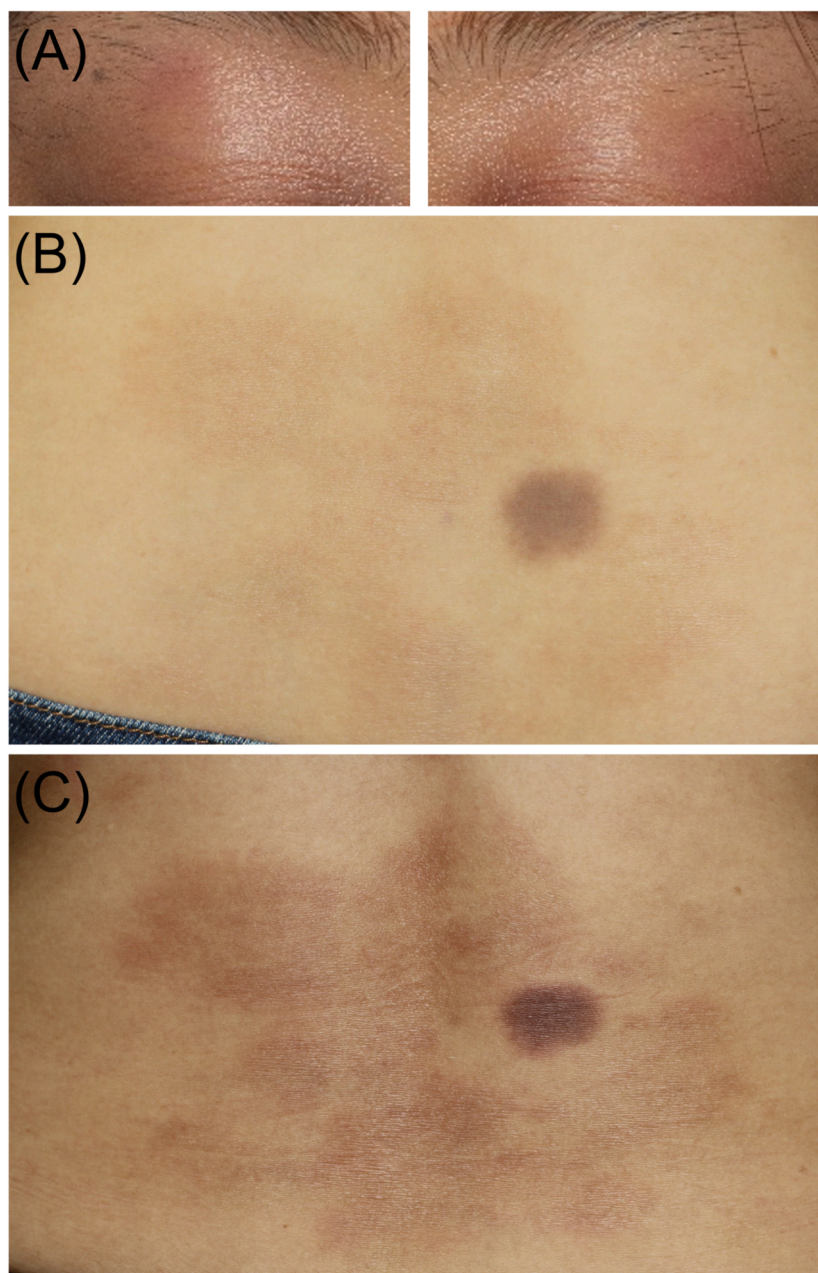
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Figure legend

Figure 1

- (A) Pruritic erythema on both upper eyelids, on the second day of clarithromycin treatment.
- (B) A residual dark brown macule, surrounded by light brown macules, on the lower back, 2 weeks after the onset of skin lesions.
- (C) One day after the oral provocation test with 1/3 clarithromycin tablet the color of the skin lesions on the lower back became much darker, and an additional reddish hue developed.



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