Letter to the Editor

Maculopapular type drug eruption caused by silodosin

Dear Editor,

Silodosin is one of the α1-adrenergic receptor antagonists and is commonly used to treat male lower urinary tract symptoms due to benign prostatic hypertrophy.1 The incidence of silodosin-related adverse events was 69.7%,1 and the most common adverse event after silodosin treatment was abnormal ejaculation.1 However, to our knowledge, there has been no case report on cutaneous drug eruption caused by silodosin in English literature. Herein, we report the first case of silodosin-induced drug eruption.

A 58-year-old male, who had suffered from benign prostatic hypertrophy for 5 years, developed his erythematous plaques and was referred to our department for evaluation of his eruption. Physical examination revealed that papules and erythematous eruption had developed on his trunk (Fig. 1A–C) and extremities without mucosal involvement after the 3rd administration of silodosin for his benign prostatic hypertrophy. Laboratory and biochemical examinations were within normal ranges. At the first visit, a skin biopsy specimen taken from an erythematous lesion on his trunk revealed lymphocyte infiltration around vessels in dermis (Fig. 1D) with less epidermal change. We performed lymphocyte stimulation test (LST) with silodosin as described previously.2,3

$^{3}$H-thymidine incorporation was significantly increased by the addition of $5.8 \times 10^{-5}$ M silodosin (corresponding to Cmax) to the peripheral lymphocyte culture with stimulation index of 4.3 (Fig. 1E). Based on the clinical course and laboratory examination, we diagnosed silodosin-induced maculopapular type drug eruption. The patient was treated with oral methyl prednisolone 10 mg per day and topical betamethasone butyrate propionate ointment. His eruption improved remarkably in a week, with residual pigmentation.

To our knowledge, this is the first report of drug eruption caused by silodosin. Because several cases of drug eruption due to other α1-adrenergic receptor antagonists have been reported, we reviewed the English and Japanese reported cases of drug eruption caused by α1-adrenergic receptor antagonists.4–8 There have been 5 reported cases, excluding our case. Skin eruption types were as follows: 2 cases of photo-allergic type, 1 cases of lichen planus type, 1 case of toxic epidermal necrolysis, and 1 case of psoriasiform type. Although our case is relatively mild form of drug eruption with less epidermal change, 50% of case showed lichenoid tissue reaction in epidermis. Therefore, it should be kept in mind that a severe cutaneous drug eruption might occur after silodosin administration.
Conflict of interest

The authors have no conflict of interest to declare.

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References


Fig. 1. (A–C) Clinical manifestation. (A) Low magnification view of clinical feature showing erythema and papules on his trunk. (B, C) High manifestation views of clinical feature on (B) chest and (C) abdomen. (D) Histological examination. A skin biopsy specimen shows lymphocyte infiltration around vessels in dermis (hematoxylin and eosin; original magnification, ×25). (E) LST showing an elevation of 3H-thymidine (TdR) incorporation in response to silodosin added to the 72 h culture of patient’s PBMC. Results are presented as the mean ± SEM. P-value was obtained by student’s t-test. *P < 0.05.