Case Report

Sweet syndrome-like cutaneous drug reaction*

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Abstract: Cutaneous drug reactions are adverse reactions to medications that may present with different clinical features, ranging from localized to generalized lesions. In this report we describe a case of an unusual drug reaction, resembling the morphology of Sweet syndrome lesions. The patient had a psychiatric illness and was using thioridazine hydrochloride for one year. He developed infiltrated and grouped erythematous lesions on the elbows and knees three days after commencing multiple drugs (promethazine, haloperidol, mirtazapine and levomepromazine). After suspension of these four drugs and after the use of glucocorticoids, the patient had significant clinical improvement.
Keywords: Sweet syndrome; Drug eruptions; Drug hypersensitivity

INTRODUCTION

Cutaneous drug eruptions are adverse reactions to medications that can present with multiple clinical features, ranging from localized lesions to generalized states. They can be triggered by numerous drugs, being antibiotics, anti-inflammatory agents, anticonvulsants, and analgesics the most frequent ones. In some cases, when multiple medications are used concomitantly, it is not possible to identify the causal agent. Such manifestations are more frequent in women and genetic predisposition via HLA I and II alleles has already been described. We report a case in which a patient under treatment for a psychiatric condition developed an unusual drug reaction, resembling Sweet syndrome.[1-3]

CASE REPORT

The patient, a 40-year-old man, has a psychiatric disease and was on treatment with thioridazine hydrochloride for over a year. He developed painless, infiltrated, erythematous, grouped lesions on the elbows and knees, with pseudo-blistering aspect, three days after starting multiple medications (promethazine, haloperidol, mirtazapine and levomepromazine) during admission in the psychiatry ward (Figures 1 to 4). There were no systemic manifestations. A punch biopsy was performed in a lesion of the left elbow, and the histopathology revealed epidermal spongiosis, marked dermal edema with reticular degeneration and perivascular inflammatory infiltrate, with a predominance of lymphocytes and sparse eosinophils (Figures 5 and 6). Blood count was unremarkable. After discontinuation of the four medications above mentioned, and after treatment with glucocorticoids, the patient improved considerably.

DISCUSSION

Drugs can lead to multiple types of skin and mucosal lesions, being the most frequent clinical presentation of drug eruptions the appearance of erythematous, urticarial macules and papules, frequently symmetrical and diffuse.[1,3] The patient developed plaques that were formed by erythematous, edematous pseudo-blistering, painless papules, that were not itchy, localized on the knees and elbows, and pompholyx lesions on the fingers, three days after

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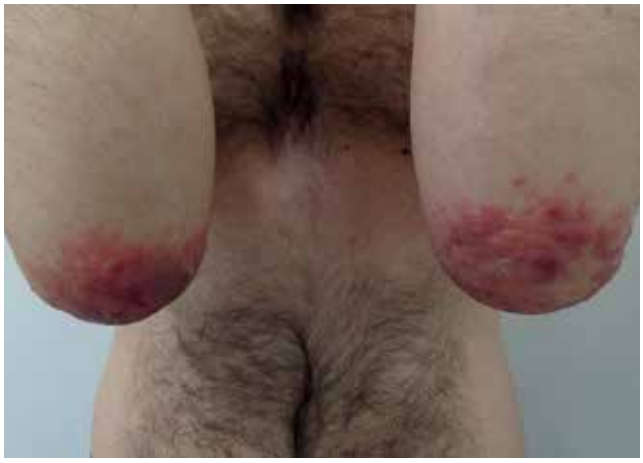

Figure 1: Erythematous, edematous plaque on both elbows

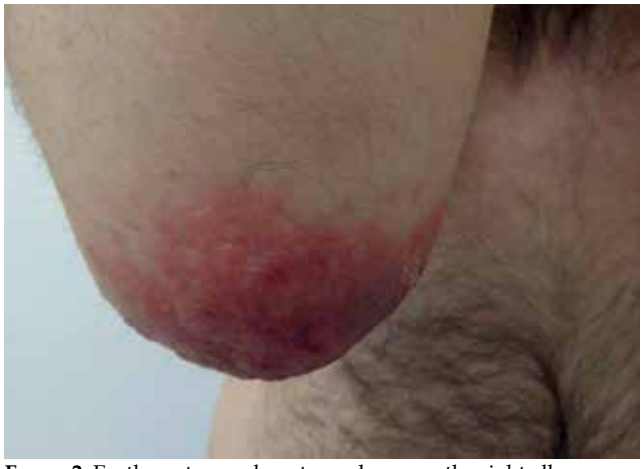

Figure 2: Erythematous, edematous plaque on the right elbow

Figure 3: Grouped erythematous lesions on the knees

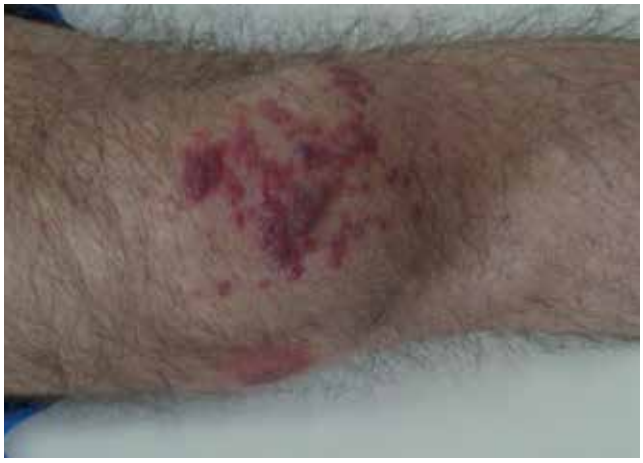

Figure 4: Erythematous, pseudo-blistering lesions on the left knee

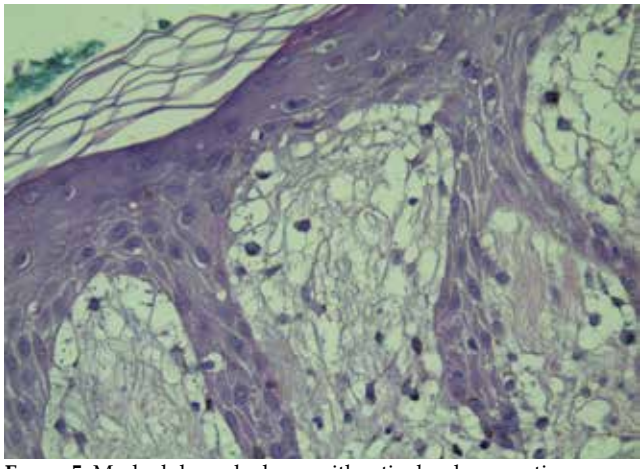

Figure 5: Marked dermal edema with reticular degeneration (Hematoxylin & eosin, X200)

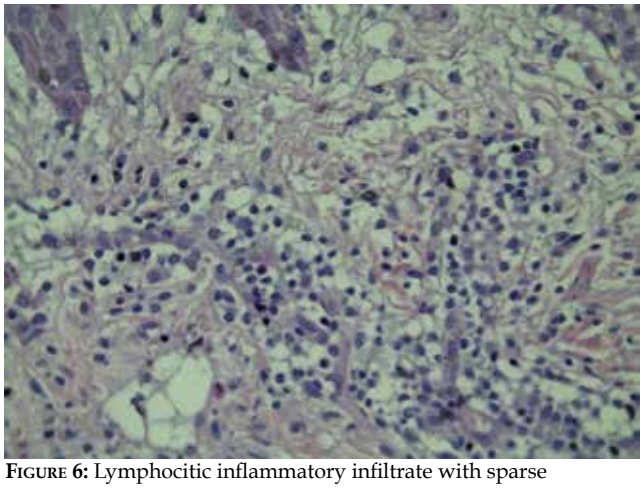

Figure 6: Lymphocitic inflammatory infiltrate with sparse eosinophils (Hematoxylin & eosin, X400)

starting medications for the treatment of psychotic break. After the histopathology results from the lesion of the left elbow, a diagnosis of drug eruption was made.

Sweet syndrome's typical cutaneous lesions are single or multiple, usually bilateral, with a symmetrical distribution. They present as erythematous, edematous, soft, painful papules or nodules, that can coalesce and acquire the shape of well-defined irregular plaques. Sometimes, the inflammatory edema is so marked that it leads to a blistering appearance, but on palpation the lesions are solid. On histopathology, there is an infiltrate made of mature neutrophils in the superficial dermis, edema of the papillary dermis and dermal papilla. Eosinophils can be seen in the cutaneous lesions of

some patients with idiopathic or drug induced Sweet syndrome. Edema of the endothelial cells, dilation of capillaries and leukocytoclasia are frequently present, and there is usually no deposits of fibrin or neutrophils in the vessel's walls. Patients can still present the following laboratory abnormalities: raised ESR, leukocytosis, anemia, thrombocytopenia, and increased alkaline phosphatase.[1,3,4]

The erythematous, edematous bilateral plaques, with a pseudo-blistering aspect of the patient had a similar aspect to the cutaneous lesions seen in Sweet syndrome, however, the patient did not have painful lesions, fever, ESR or blood count abnormalities (such as leukocytosis), that are commonly found in Sweet syndrome. On the histopathology, an eosinophilic infiltrate, typical of a drug reaction, was seen, but it can also be observed in drug induced Sweet syndrome. However, there was no neutrophilic infiltrate in the dermis, excluding the diagnosis of Sweet syndrome. Therefore, based on the infiltration and the pseudo-blistering aspect seen on the cutaneous lesions of this patient, we suggested naming the clinical picture a Sweet syndrome-like adverse drug reaction.

Another differential diagnosis for this case could be fixed drug eruption, that is a presentation of drug reaction that is usually localized, and has different morphology, less edema and infiltration, and whose lesions recur on the same areas, which were not seen in this patient. Erythema elevatum diutinum, is a leukocytoclastic vasculitis that affects small vessels and can present with lesions of similar morphology and topography to those of this patient. However, the absence of fibrinoid necrosis on the histopathology does not confirm this diagnosis.[1,4]

In this case, the patient used multiple medications, what makes difficult the task of establishing which of the medications was the trigger for the clinical picture. ❑

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