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CASE REPORT

Esomeprazole-induced lichen planus

Toxidermia liquenóide associada ao esomeprazol

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Abstract

Introduction: Lichenoid drug eruption (LDE) is an uncommon cutaneous drug reaction (CDR) that has classically been associated with anti-hypertensive drugs, gold, and penicillamine. **Case presentation:** We present the case of a 63-year-old woman who developed a pruriginous disseminated dermatosis composed of violaceous polygonal flat-topped papules affecting the flexural aspects of the upper and lower limbs, abdominal flanks, and the lumbar and sacral regions. The lesions started 2 weeks after initiating esomeprazole intake. A histopathological exam of one of the lesions was compatible with LDE. The patient discontinued esomeprazole and was treated with medium potency topical corticosteroids and emollient with full resolution of symptoms. **Conclusion:** Even though CDRs associated with proton-pump inhibitors (PPI) are relatively common, there are only three reported cases of LDE. We report this case to highlight the importance of considering PPIs as the culprit drug in similar clinical situations.

Keywords: Lichenoid drug eruption. Proton-pump inhibitors. Esomeprazole.

Resumo

Introduçao: A toxidermia liquenóide (TL) é uma entidade rara associada, classicamente, ao uso de anti-hipertensores, ouro e penicilamina. **Apresentação do caso:** Apresentamos o caso de uma mulher de 63 anos que desenvolveu uma dermatose disseminada pruriginosa composta por pápulas violáceas poligonais de superfície plana, que afectavam as superfícies flexoras dos membros, flancos e região lombo-sagrada. As lesões surgiram duas semanas após iniciar a toma de esomeprazol. O exame histopatológico de uma lesão foi compatível com o diagnóstico de TL. A doente descontinuou a toma de esomeprazol e foi medicada com um corticóide tópico de média potência e emoliente, com resolução completa dos sintomas. **Concluçao:** Apesar dos efeitos adversos cutâneos serem comuns com a toma de inibidores da bomba de protões (IBP), só existem três casos publicados de TL associada a estes fármacos. Reportamos este caso para destacar a importância de considerar os IBP como agentes causais em situações clínicas semelhantes à descrita.

Palavras-chave: Toxidermia liquenoide. Inibidor da bomba de protões. Esomeprazol.

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Introduction

Cutaneous drug reactions (CDRs) are a common reason for dermatologic consultation, with a clinical spectrum that ranges from self-limited and benign dermatosis to life-threatening conditions.

LDE has classically been associated with antihypertensive drugs (angiotensin-converting enzyme -inhibitors, β-blockers, and thiazides), gold, and penicillamine[1,2] but over the years, the list of implicated agents has been growing.

A pruriginous rash composed of erythematous scaly papules and plaques usually distributed in the trunk and extremities is the most common presentation. Sometimes, lesions can resemble inflammatory dermatosis like psoriasis or eczema, may follow a photo-distributed pattern[3] and present after a long latent period.

Clinical case

We report the case of a 63-year-old woman with a past medical history of hypertension treated with olmesartan for over 10 years, who developed gastritis and started treatment with esomeprazole 40 mg/day.

Around 2 weeks later, the patient developed a pruriginous disseminated dermatosis composed of violaceous polygonal flat-topped papules affecting the flexural aspects of the upper and lower limbs, abdominal flanks, and the lumbar and sacral regions (Figures 1 A and B). The remaining physical examination was unremarkable. Laboratory workup, including hemogram, ionogram, liver function, and renal function, were normal and anti-hepatitis C virus antibodies, venereal disease research laboratory test, and treponema pallidum haemagglutination test were negative.

A punch biopsy of an abdominal papule revealed irregular epidermal hyperplasia, hypergranulosis, apoptotic keratinocytes, areas of focal parakeratosis, and a dense band-like lymphocytic infiltrate in the upper dermis (Figure 2).

A diagnosis of drug-induced lichen planus (LP) was made. The patient discontinued esomeprazole and was treated with medium-potency topical corticosteroids and emollient twice daily for 1 month. At the 2-month follow-up, most lesions had regressed with postinflammatory hyperpigmentation, and there was no recurrence at 6-month follow-up.

Discussion

Adverse drug reactions frequently involve the skin and follow, in most cases, benign courses. LDEs are relatively uncommon[4] (unlike maculopapular rashes) and usually present in adults (median age 57-66 years)[5].

The pathophysiology of LDE hasn't been fully elucidated, and it is thought to differ, at least partially, from LP. Regardless, $T8^+$ cells and granzyme B appear to be central key factors in its development[1,6].

Differential diagnosis includes LP, subacute lupus erythematosus, psoriasis, eczema, secondary syphilis, and keratosis lichenoid chronica.

Differentiation from LP can be difficult but is crucial, as discontinuation of the inciting drug leads, in most cases, to the resolution of lesions (it is noteworthy, however, that some patients maintain symptoms even after drug removal)[1]. Clinically, classical sites of LP lesions, such as the flexural aspects of the limbs and mucosa, are less commonly affected in LDE and Wickham striae are frequently not found in the latter[1,3]. Histopathologically, even though there are several common features between these two entities, LDE often presents with eosinophils, focal parakeratosis, and focal interruption of the granular layer[6]. In this patient, however, eosinophils were not found on the skin biopsy, which, in itself, does not exclude the diagnosis of LDE.

Time to develop lesions after drug initiation differs between class types and is highly variable, ranging from weeks to several months or even years[1,3].

In this case, clinical and histopathological findings compatible with LDE, temporal association with esomeprazole intake, resolution of symptoms, and lack of recurrence after drug withdrawal favor the diagnosis of esomeprazole-induced LP.

Proton-pump inhibitors (PPI) are one of the most commonly prescribed drug classes, and there are several published reports of cutaneous reactions associated with its use. These range from immediate immunoglobulin E mediated reactions (urticaria and anaphylaxis) to delayed-type hypersensitivity "Stevens-Johnson/toxic epidermal necrolysis, drug reaction with eosinophilia and systemic symptoms, fixed drug eruption, and drug-induced subacute lupus erythematosus, among others"[4,7]. There are three published case reports of PPI-induced LP[2,4,8]. Two patients were older males (median age 79.5 years)[2,8], one of whom developed LDE to several PPIs[8]. The remaining case was a 2-year-old girl treated with esomeprazole[4]. Resolution of symptoms with drug withdrawal was reported in two of these cases[4,8].

Being a relatively uncommon clinical entity, studies regarding the best clinical approach to treatment are lacking. Drug discontinuation is central to resolution,

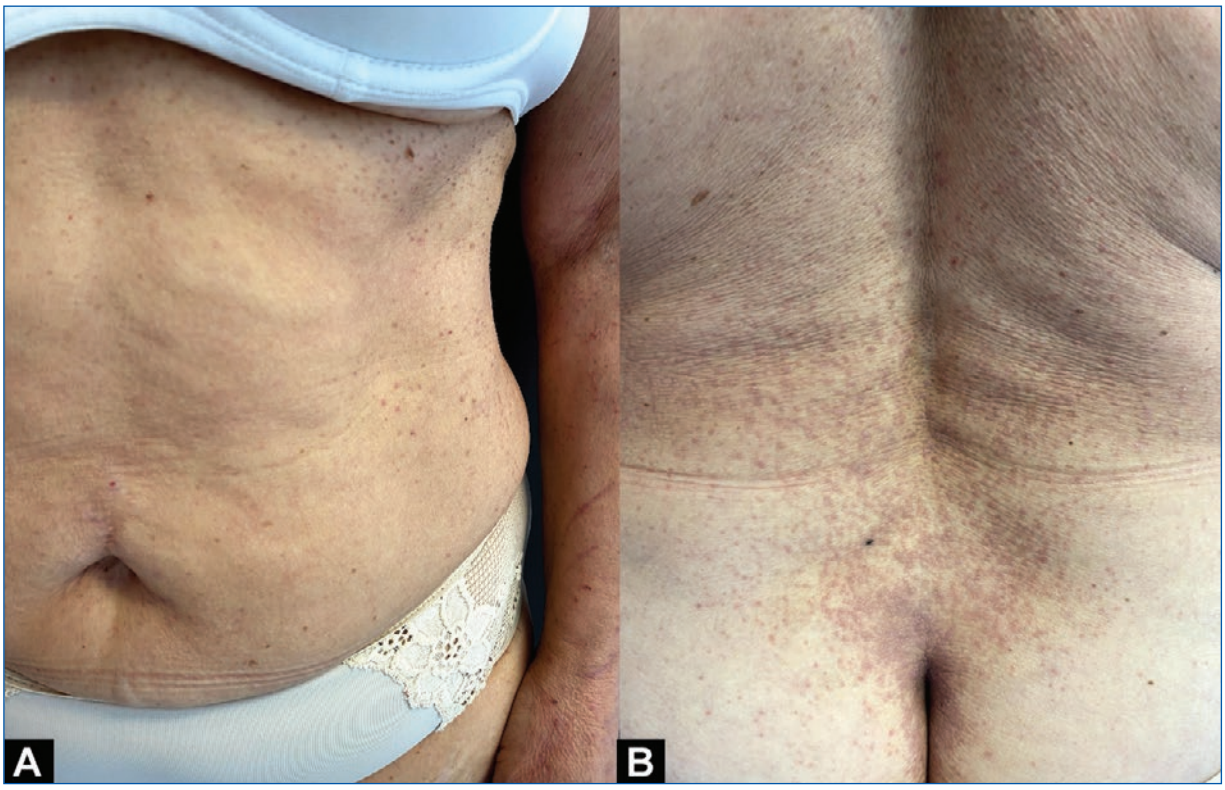

Figure 1. Lichenoid papules affecting the abdominal region **(A)**. Close-up of lumbar and sacral lesions **(B)**.

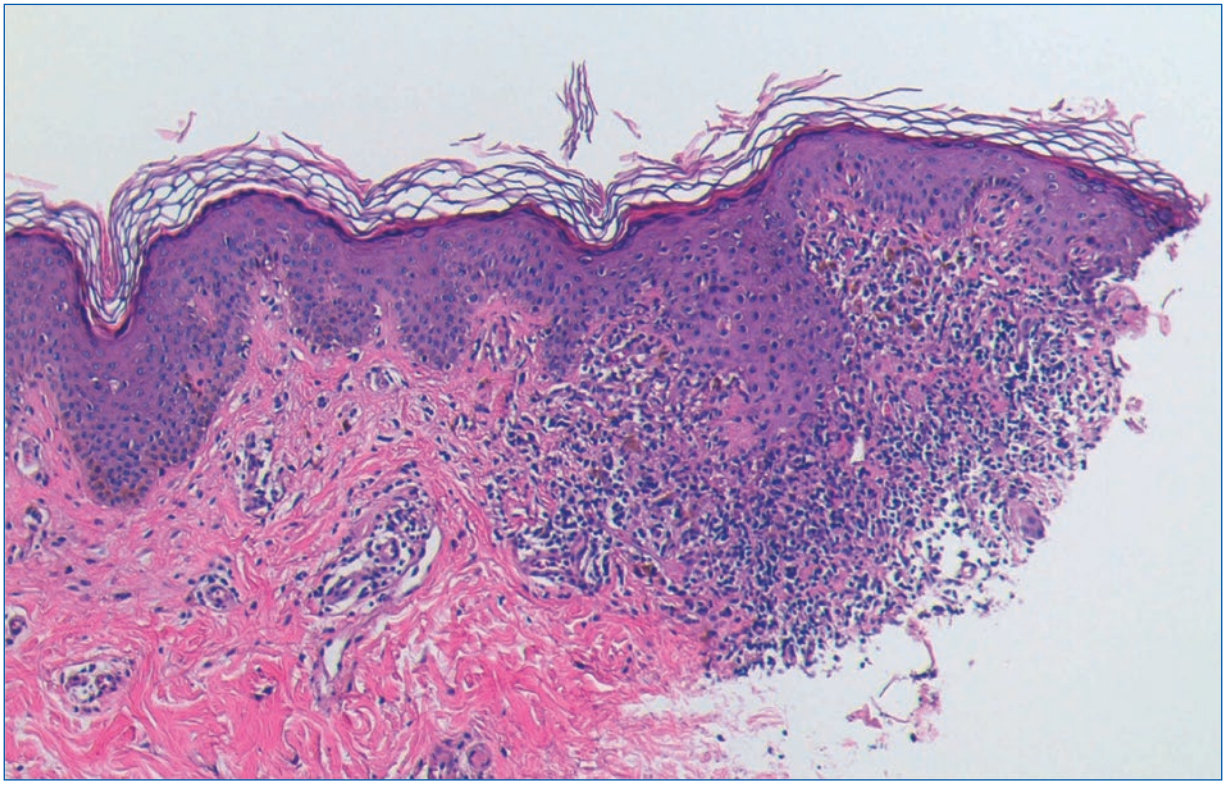

Figure 2. Histopathologic findings of a biopsy of an abdominal papule (hematoxyline-eosin staining, 100×).

and, other than that, topical and systemic corticosteroids are the mainstream treatment[1,2,4].

We report this case to highlight the importance of considering PPI as the culprit drug in similar clinical situations, as PPI-LDE is a rare entity.

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Conflicts of interest

None.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this study.

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors have obtained the written informed consent of the patients or subjects mentioned in the article. The corresponding author is in possession of this document.

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