

## Generalized Bullous Fixed Drug Eruption – A Rare Diagnose Caused by A Common Drug

Ana F. Batista\*, Ivo Barreiro and Catarina Duarte Santos

Internal Medicine, Hospital Distrital da Figueira da Foz, Portugal

\*Corresponding author: Ana Filipa Batista, Internal Medicine, Hospital Distrital da Figueira da Foz, Portugal.

E-mail: [filipa\\_batista\\_@hotmail.com](mailto:filipa_batista_@hotmail.com)

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## **Abstract**

Fixed drug eruption is a common cutaneous adverse reaction seen in clinical practice, with a wide spectrum of presentations, often associated with drugs such as acetaminophen, non-steroidal anti-inflammatory drugs and antibiotics, whose diagnosis should be considered in the face of suggestive clinical history and physical examination. While the first episode requires a greater degree of suspicion to establish the connection between symptoms and drug exposure, the biggest challenge with subsequent episodes is the therapeutic management, as they are generally characterized by more exuberant and severe clinical features.

The authors present the case of a 92-year-old woman who developed extensive bullous-type skin lesions, with important areas of skin detachment, located on the trunk, genital region and lower limbs, secondary to ibuprofen. After considering all elements, namely the history of a previous similar reaction of lesser severity, associated with taking this drug, allowed the diagnosis of generalized bullous fixed drug eruption to be made, a rare subtype of drug eruption, not always with a favorable prognosis.

## **Clinical Case**

The authors present the case of a 92-year-old woman, with no relevant personal history, not taking regular medication, who went to the Emergency Department due to the appearance of erythematous, painful and pruritic skin lesions over the trunk, genital region and lower limbs, sparing mucous membranes, first noticed the day before, showing rapid progression to extensive and numerous bullous lesions, with large areas of skin detachment. She denied fever, headache, arthralgias or other symptoms suggestive of systemic infection.

On physical examination, she was hemodynamically stable and afebrile. The previously mentioned cutaneous lesions showed areas of confluence with detachment of the epidermis and were spontaneously painful (Figure 1). The analytical evaluation was unremarkable, except for the increase in creatinine (Creatinine 1.43 mg/dL, N 0.5-0.9 mg/dL). There was no elevation of the inflammatory markers.

The extensive lesions motivated the transfer to a Burn Intensive Care Unit and supportive treatment, as well as aggressive wound care were offered. There was no time left for further study because, unfortunately, less than 24 hours after admission, the patient died.

The clinical history obtained revealed a recent ibuprofen intake (<24h since admission), with a previous known episode of adverse reaction triggered by this drug 3 years before, characterized by the presence of erythematous, painful and pruritic lesions, in the same location, which evolved favorably to pigmented lesions that eventually disappeared over time.

## **Discussion**

Fixed drug eruption is a common cutaneous adverse reaction seen in clinical practice, which can occur at any age, but is more common in adults (associated with a higher percentage of automedication in this age group), with equal distribution between genders [1-5]. The main etiological agents are acetaminophen, non-steroidal anti-inflammatory drugs and antibiotics [1,3-5]. This diagnosis should always be considered in the face of suggestive clinical history and physical examination, but it is more difficult with first case presentations. In the event of a subsequent episode, the history compatible with recent ingestion of the causative drug facilitates, to a large extent, clinical reasoning, in addition to the fact that it is not only typically characterized by lesions in the same locations (it may involve additional locations), but the clinical scenario is more exuberant with increased severity [1,4]. Although the lesions usually heal in 7-10 days, after the causative agent is withdrawn, they often originate a post-inflammatory hyperpigmentation scar [1,3,5].

The clinical case here presented represents a rare and severe subtype, known as generalized bullous fixed drug eruption (GBFDE), which is characterized by the presence of vesicles and/or blisters, associated with skin detachment, in a significant percentage of the body surface (>10% ), at least in 3 out of 6 distinct anatomical sites (head and neck, anterior trunk, back, upper limbs, lower limbs and genital region) – mucous membrane involvement is less common [1,3-4]. Due to the typical extent of lesions, its differential diagnosis includes entities such as Steven-Johnson syndrome and toxic epidermal necrolysis [1-5]. Although this distinction can be made based on clinical grounds, some characteristics may overlap and, in ambiguous cases, skin biopsy can be essential [3-4].

Patients with GBFDE tend to be older, often do not have constitutional symptoms and systemic involvement is minimal. Symptoms usually appear between 1 to 3 weeks after exposure, typically in the first 48 hours, the lesions are well delimited and there is a larger area of normal skin between lesions. A previous history of a similar reaction, albeit less severe, caused by the same agent, is often present and is pathognomonic [2-4]. Treatment is mostly supportive, occasionally using short courses of systemic corticosteroids, after discontinuation of the culprit medication [3-4]. The prognosis, initially considered better, compared to the other etiologies previously mentioned in the differential diagnosis, has been questioned, with some studies showing similar mortality rates (22%), when adjusted for age and extension of the cutaneous involvement [4].

## REFERENCES

1. Anissa Z, Fatma S, Sélina J, et al. Bullous fixed drug eruption: A potential diagnostic pitfall: A study of 18 cases. *Thérapie*. 2019; 74: 527-530.
2. Akash A, Anupam D, Piyush K. Uncommon variants of fixed drug eruption. *Indian J Dermatol Venereol Leprol*. 2022.
3. Victoria M, Danielle A, Yasser A, et al. Generalized bullous fixed drug eruption imitating toxic epidermal necrolysis: A case report and literature review. *Derm Online J*. 2017; 23.
4. Hannah A, Jason L. A review of fixed drug eruption with a special focus on generalized bullous fixed drug eruption. *Medicina*. 2021; 57.
5. George S, Teja M, Charles R. Fixed drug eruption: An underrecognized cutaneous manifestation of a drug reaction in the primary care setting. *Cureus*. 2022.