



RESEARCH ARTICLE

SYMMETRICAL DRUG-RELATED INTERTRIGINOUS AND FLEXURAL EXANTHEMA (SDRIFE) INDUCED BY OXYTOCIN ADMINISTRATION

S. Ibzer, I. Bahbouhi, M. Aboudourib and O. Hocar S. Amal

Dermatology and Venerology Department, CHU Mohammed VI Bioscience and Health Laboratory, FMPM Cadi Ayyad University, Marrakech, Morocco.

Manuscript Info

Abstract

Manuscript History

Received: 30 November 2022

Final Accepted: 31 December 2022

Published: January 2023

Copy Right, IJAR, 2023,. All rights reserved.

Introduction:-

Drug-induced Baboon syndrome also known as Symmetrical Drug-Related Intertriginous and Flexural Exanthema (SDRIFE) is a rare form of toxidermia. SDRIFE is most commonly seen after exposure to antibiotics such as penicillin and cephalosporins. We report here the first case of SDRIFE induced by oxytocin administration in a 26-year-old female patient.

Case Report:

A 26-year-old woman presented with an erythematous rash on her body that appeared 10 days after delivery. It was a maculo-papular rash located symmetrically on the buttocks, lower back and inguinal folds. The rashes were associated with pruritus. The patient reported a history of similar rash after her first delivery. Both deliveries were induced by oxytocin. She was not taking any medications at the time of presentation. Physical examination showed an erythematous rash on her buttocks, lower back and inguinal areas. (Figure 1). There was no mucosal nor ocular involvement. The patient was afebrile, in good general condition, and the somatic examination showed no cervical adenopathy nor edema of the face. The clinical manifestations supported the diagnosis of baboon syndrome induced by oxytocin. No histological examination was needed given the typical aspect of the eruption. The patient was treated with topical corticosteroid. She showed a remarkable improvement of skin eruptions within days after steroid therapies. The eruption resolved a few days later after diffuse desquamation.

Discussion:-

Baboon syndrome was described in 1984 as a skin rash, which by its clinical aspect, was reminiscent of the red buttocks area of the baboon [1]. The nomenclature has evolved and the term SDRIFE was used. The new acronym for this syndrome, was proposed in a review [2]. Even though the arguments in favor of the acronym are reasonable, many authors still refer to the syndrome as the baboon syndrome [3].

SDRIFE is a rare drug eruption, characterized by the appearance of symmetrical erythematopapular plaques on the buttocks, inner thighs and flexion creases occurring after systemic administration of a drug or ingestion of an allergen in previously sensitized patients. Five diagnostic criteria were suggested for it: (1) exposure to a systemically administered drug at the time of first or repeated doses (contact allergens excluded); (2) sharply

Corresponding Author:- S. Ibzer

Address:- Dermatology and Venerology Department, CHU Mohammed VI Bioscience and Health Laboratory, FMPM Cadi Ayyad University, Marrakech, Morocco.

demarcated erythema of the gluteal/ perianal area and/or V-shaped erythema of the inguinal/ perigenital area; (3) involvement of at least one other intertriginous/flexural fold; (4) symmetry of affected areas; and (5) absence of systemic symptoms and signs[2].

In a recent study, the onset of the rash ranged from 1 to 120 days after drug intake [4].

This condition is usually induced by penicillin, but it has also been reported after exposure to mercury, nickel, clozapine and omeprazole, and to biological agents[5,6].

Many other drugs have been reported mainly in single case reports such as: antihypertensive drugs, contrast agents ibuprofen and tamoxifen [7, 8, 9]. The use of oxytocin for induction of labor was first described in 1948[10]. Since then, synthetic oxytocin has long been widely used to induce and stimulate spontaneous labor[11]. Oxytocin induction was associated with a lower rate of failure to deliver vaginally within 24 hours. Its adverse effects are primarily dose related: uterine tachysystole, abnormal fetal heart rate tracings, hypotension, water intoxication, and rarely uterine rupture[10]. The most frequent adverse effects of oxytocin in mothers are headaches and tachycardia[12].

To our knowledge, this is the first report of Oxytocin-induced SDRIFE syndrome.

The clinical differential diagnosis for SDRIFE includes other cutaneous drug eruptions such as fixed drug eruption (FDE), acute generalized exanthematous pustulosis (AGEP), and drug rash with eosinophilia (DRESS)[9]. Other common entities may resemble SDRIFE: candidiasis, tinea, inverse psoriasis, contact dermatitis[4]. The exact mechanism of SDRIFE pathogenesis is uncertain. There is evidence for the role of a T-cell-mediated delayed type of hypersensitivity reaction which is supported by immunohistologic findings on skin, positive patch tests, delayed skin tests, and lymphocyte transformation tests. The reason for the localization on flexural areas is still unknown. Several hypotheses have been suggested. It may be a type of recall phenomenon from previous mechanical stimulation that had occurred in the past in the same areas as the drug eruption. Another theory, is the high density of eccrine glands present in flexural areas which is responsible for the excretion of the drug metabolites[13]. Treatment of SDRIFE is based on the withdrawal of the causative agent. Topical steroids may be prescribed to speed up the recovery. SDRIFE is a self-limiting drug eruption with a good prognosis. Recovery may take up to 3 weeks[9].

Conclusion:-

Given the widespread use of oxytocin in the management of parturient, it is imperative that health care professionals recognize the rare but characteristic eruption of SDRIFE syndrome. Our observation suggests that SDRIFE syndrome should be considered in case of fold rash eruption in parturient on oxytocin infusion.

References:-

- 1 Andersen KE, Hjorth N, Menne T. The baboon syndrome: Systemically-induced allergic contact dermatitis. *Contact Dermatitis*. 1984;10:97-100
- 2 Hausermann P, Harr T, Bircher AJ. Baboon syndrome resulting from systemic drugs: Is there strife between SDRIFE and allergic contact dermatitis syndrome? *Contact Dermatitis*. 2004;51:297-310.
- 3 Akkari H, Belhadjali H, Youssef M, Mokni S, Zili J. Baboon syndrome induced by hydroxyzine. *Indian J Dermatol*. 2013; 58 (3):244
- 4 Schuler, Andrew M., et al. Symmetric drug- related intertriginous and flexural exanthema: Clinicopathologic study of 19 cases and review of literature. *Journal of Cutaneous Pathology*. 2021;48(12): 1471-1479.
- 5 Kardaun SH, Tupker RA. Symmetrical drug-related intertriginous and flexural exanthema (Baboon syndrome) induced by omeprazole. *Int J Dermatol* 2012; 51:1134-7
- 6 Powers R, Gordon R, Roberts K, Kovach R. Symmetrical drug-related intertriginous and flexural exanthema secondary to topical 5-fluorouracil. *Cutis*. 2012; 89(5):225-228.
- 7 Roopa B, Sangeetha Kumar K, Mary Rohini P, Prasanna V. Case report-baboon syndrome with paracetamol. *Int J Basic Clin Pharmacol*. 2018; 7: 2061-2064
- 8 El Baraka Cherkaoui F, El Fatoiki F. Z, Sklali H. D, Hali F, Chiheb S. Recurrent flexural exanthema following administration of ibuprofen. *Revue Française d'Allergologie*, 2020;60(3): 175-176.

- 9 Mofarrah R, et al. First report of tamoxifen-induced baboon syndrome. *Journal of Cosmetic Dermatology*. 2021; 20(8): 2574-2578.
- 10 Tsakiridis I, Mamopoulos A., Athanasiadis A, Dagklis T. Induction of labor: an overview of guidelines. *Obstetrical & gynecological survey*. 2020; 75(1): 61-72.
11. Berghella V, Bellussi F, Schoen C. N. Evidence-based labor management: induction of labor (part 2). *American Journal of Obstetrics & Gynecology MFM*. 2020; 2(3):100136.
- 12 Coulm B, Tessier V. Oxytocin administration during spontaneous labor: Guidelines for clinical practice. Chapter 4: Oxytocin efficiency according to implementation in insufficient spontaneous labor. *Journal of gynecology obstetrics and human reproduction*. 2017; 46(6): 499-507.
- 13 Wolf R, Tüzün Y. (2015). Baboon syndrome and toxic erythema of chemotherapy: fold (intertriginous) dermatoses. *Clinics in Dermatology*. 2015; 33(4): 462-465.