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Case report of drug induce erythroderma in diabetic patient

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Abstract

Erythroderma, a severe form of skin reddening, is often difficult to diagnose and is usually caused by underlying inflammatory skin conditions. In this case report, we present the management of a patient diagnosed with drug-induced erythroderma. The patient developed generalized redness and scaling 21 days after receiving an unknown injection for pain from a local pharmacy. A thorough history and clinical examination were conducted, and drug-induced erythroderma was suspected. The patient was treated with a combination of mid-potency corticosteroids, liquid paraffin, recombinant human epidermal growth factor, and oral antihistamines. The patient recovered after strict diabetic diet control and was discharged.

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Introduction

Erythroderma is a skin disorder that is characterized by the scaling of the skin on a generalized level. This condition characterized by diffuse redness and scaling of more than 90% of the body surface is present. Skin disorders can be caused by a variety of factors, including medication, an unknown cause, and underlying conditions affecting the skin or other areas of the body.

Erythroderma is a chronic condition associated with a range of signs and symptoms, including intense pruritus and scaling, and can have life-threatening consequences if not diagnosed and managed appropriately. Mortality rates associated with Erythroderma are generally low, but morbidity is considerable. Erythroderma consists of a risk of loss of life because of its metabolic burden and aspect results, and accordingly it's far critical to identify the cause of the situation so one can offer appropriate care. A comprehensive investigation need to be performed to determine the underlying cause of the symptom, as it is able to be related to numerous pores in skin and systemic illnesses. Due to the complexity of its aetiology, the management of this skin condition remains challenging.

Here we report a rare case report of erythroderma, seborrheic dermatitis due to the unknown medication injection days before for pain on local pharmacy store which ultimately result into redness scaling all over the body starting from lips and patient was admitted in general medicine word , after getting treatment for 4 days patient request to go home but one day after again the patient develop the sever pruritus and scaling for which he is again admitted and started the treatment in general medicine word.

Case Report

A 74-year-old man came to the clinic with redness, scaling, and itching all over his body that had been present for 21 days. The symptoms started after he took an unknown injection for pain. Upon examination, the patient had a generalized scaling eruption on his scalp, trunk, hands, and extremities, but no signs of lymphadenopathy or pleural effusion. The patient's vital signs were stable with a heart rate of 89 beats per minute and blood pressure of 120/70 mmHg. The patient has a history of diabetes and hypertension, and is taking medication for both conditions (Metformin + Glimepiride and Telmisartan). Laboratory investigations showed elevated glucose levels and white blood cell count at the time of admission, but these improved by the time of discharge. No other significant abnormalities were noted in the results.

Laboratory investigations done revealed that

Investigation	Time of admission	before discharge	Normal
FBS(mg/dl)			70-100
Hb(gm/dl%)	220	117	13-17
WBC(cells/cumm)	12.6	12	4000-
PVC (%)	19400	13800	11000
RBC(mill/cumm)	39.0	29.5	40-50
EOSINOPHILS	3.3	4.52	4.5-5.5
TOTAL BILI(mg/dl)	4%	5%	1-4
CONJ.BILI	1.9	1.4	0.2-1.2
ALKALINE	0.6	0.5	0.0-0.3
PHOSPHATE(IU/L)	84	50	53-141
BLOOD			
UREA(mg/dl)	155	141	12.6-
CREATININE	3.0	1.2	42.6
(mg/dl)			0.5-1.4

Then his condition was treated with tab corticosteroid(prednisolone) 40mg and antihistamine tab.bilashine 20mg,liquid paraffin ,Regan-D(Recombinant Human epidermal Growth Factor gel) since the patient is having diabetes due to which recovery get slow then the treatment was done with adding injection actrapid and antibiotic cefpodoxime proxetil along with general supportive treatment. In this case; the patient developed erythroderma reaction that's suggestive due to unknown medicinal drug allergic reactions, patient is having diabetes too which exacerbate the circumstance and he showed improvement after controlling blood sugar with insulin and diabetic food.

Discussion

The epidermal turnover rate has increased significantly, resulting in erythroderma. The mitotic rate and the overall number of terminative skin layers and skin cells are increased compared to normal. Additionally, there may be a decrease in the amount of time required for cells to proliferate and pass through the dermis. As a result of the accelerated maturation process, there is an increased loss of epidermal surface, which is observed clinically as excessive scaling. In the present case patient is presented with 90% body surface erythema and scaling along with itching since 15days, The underlying pathogenesis of this hypersensitivity or immune-mediated and/or toxic in nature, is unclear. Patient comorbidity like diabetes trigger the condition because of high blood sugar that reduce the healing for so long days and after starting the strict diabetic food and insulin therapy the patients skin redness and scaling reduce.

Conclusion

Skin adverse reaction like erythroderma are usually not severe, until and unless patient is having the comorbidity like DM, HTN, HIV which may lead to life-threatening situation. One such adverse drug reaction (ADR) where early detection can prevent disastrous results is drug-induced erythroderma. Early detection of the condition causative factor can help to avoid that medication and prevent the further damage. Management of adverse drug reactions is mainly symptomatic and supportive. It is important to recognize that re-exposure to the causative agent may lead to more serious reactions in the future. Patients should be educated in matters of over-the-counter medication and encouraged to consult a doctor or pharmacist before taking any kind of medication. Moreover, the importance of consulting a pharmacist should be emphasized both before and after taking medication. And such life threatening condition can be prevented when government implement a strict clinical pharmacy intervention in the local level so the patient taking multiple medication can detect drug interaction and reduce the OTC dispensing. Also pharmacist should strictly take a medication history before dispensing the OTC and reporting of ADR in all stages should be done by this the half of ADR related case can be prevent form ground level effort.

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