CASE REPORT

Chloroquine-induced Photosensitive Dermatoses: A Case Report

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Received on: 17 May 2023; *Accepted on:* 30 June 2023; *Published on:* 06 July 2023

Abstract

Background: Adverse drug reactions (ADRs) are common occurrences in a hospital setting attributed to the severity and complexity of the disease process, use of multiple drugs, drug interactions, and possible negligence. Chloroquine-induced photosensitive dermatoses refer to skin conditions that arise as a result of sensitivity to sunlight or ultraviolet (UV) radiation after the use of chloroquine medication.

Methods: We report a case of photosensitive dermatoses due to chloroquine is seen in a tertiary care teaching hospital at Puducherry.

Results: A fifty years old female patient was prescribed chloroquine 150 mg orally for a period of 1 month for rheumatoid arthritis. At the end of 1 month, she developed multiple, irregular, well-defined, pigmented, scaly plaques over the sun-exposed areas of the face, upper arms, and forearms. A diagnosis of probable chloroquine-induced photosensitive dermatitis was made.

Conclusion: Chloroquine-induced photodermatoses are an uncommon adverse drug reaction seen in 1–2% of the population. Though routine ophthalmological examination is done for patients on chloroquine therapy, this adverse cutaneous drug reaction should also be looked at with caution by the prescribing physicians.

Keywords: Adverse drug reaction, Chloroquine, Karaikal, Photosensitive dermatoses.

SBV Journal of Basic, Clinical and Applied Health Science (2023): 10.5005/jp-journals-10082-03195

Introduction

In a hospital setting, adverse drug reactions (ADRs) are frequent incidents that can be attributed to the complexity and severity of the disease process, the use of multiple medications, potential drug interactions, and occasional negligence.[1] The findings of a study suggested that ADRs may occur in approximately 10–20% of hospitalized patients, leading to prolonged hospital stays.[2] Furthermore, reporting ADRs plays a crucial role in increasing vigilance and can even influence regulatory authorities' recommendations regarding drug usage.[3] An example of a drug known for its adverse effects is chloroquine, a commonly prescribed antimalarial and Disease-modifying Anti-rheumatoid Drug. Prolonged use of chloroquine has been associated with a wide range of side effects, including photosensitive dermatoses.[4] Here we report a case of photosensitive dermatoses due to chloroquine seen in a tertiary care teaching hospital at Karaikal, Pondicherry.

Case Description

This case is being reported after getting informed written consent from the patient. A 50 years old female patient was prescribed chloroquine 150 mg orally for a period of 1 month for rheumatoid arthritis. At the end of 1 month, she developed multiple, irregular, well-defined, pigmented, scaly plaques over the sun-exposed areas of the face, upper arms, and forearms (Figs 1 and 2). A diagnosis of probable chloroquine-induced photosensitive dermatitis was made. Chloroquine was withdrawn and she was advised to continue tab ibuprofen and tab methotrexate and she recovered from the cutaneous reaction.

Discussion

The exact mechanism by which chloroquine is used as a Disease-modifying Anti-rheumatoid drug is not known. In this case of dermatoses caused by chloroquine, the causality assessment was done using Naranjo s algorithm and the association was probable

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How to cite this article: Narayanasamy A. Chloroquine-induced Photosensitive Dermatoses: A Case Report. J Basic Clin Appl Health Sci 2023;6(3):65–66.

Source of support: Nil

Conflict of interest: None

Fig. 1: Photosensitive dermatoses in the upper back and neck

Fig. 2: Photosensitive dermatoses in upper limbs

with moderate severity according to Hartwig et al. scale.[2,3] Preventability assessment was done based on a modified Schomock and Thornton scale and found to be not preventable.[1–3]

Conclusion

Chloroquine-induced photodermatoses is an uncommon adverse drug reaction seen in 1–2% of the population. Though routine ophthalmological examination is done for patients on chloroquine therapy, this adverse cutaneous drug reaction should also be looked at with caution by the prescribing physicians.

References

1. Leape LL, Brennan TA, Laird N, Lawthers AG, Locardio AR, Barners BA et al. The nature of adverse events in hospitalized patients - results of Harvard Medical school practice study II. N Eng J Med 1991;324(6):377–384. DOI: 10.1056/NEJM199102073240605.
2. Classen DC, Pestotnik SL, Evans RS, Lloyd JF, Burke JP. Adverse drug events in hospitalized patients-excess length of stay, extra costs and attributable mortality. J Am Med Assoc 1997;277(4):301–306. PMID: 9002492.
3. Storm BL, Tugwell P. Pharmacoepidemiology - current status, prospects and problems. Ann Int Med 1990;113(3);179–181. DOI: 10.7326/0003-4819-113-3-179.
4. Lysack JT, Lysack CL, Kvern BL. A severe adverse reaction to mefloquine and chloroquine prophylaxis. Aust Fam Physician 1998;27(12):1119–1120. PMID: 9919736.