

Case Report

Bleomycin Induced Drug Allergy Mimicking Herpes Skin Infection: A Case Report

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Received: 11 May, 2020
Accepted: 16 May, 2020
Published: 18 May, 2020

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Keywords: Bleomycin; Maculopapular rashes; Anaphylactic reaction

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Summary

We report a case of bleomycin induced drug allergy in a healthy 34 year- old gentleman. He developed generalized maculopapular rashes with some vesicles over the shoulders, abdomen and both upper limbs and right thigh second day after administration of bleomycin and that can be mistaken for herpes skin infections if we do not perform clinical examination systematically and thoroughly. Using this case report, we emphasize the importance of distinguishing between herpes virus skin infection and drug induced reaction and highlight the difference in management strategies.

Introduction

Bleomycin containing chemo regime is highly employed and effective in treating for Hodgkin lymphoma disease. If there is a problem with bleomycin related drug reaction, the standard type of chemo regime should not be used any longer and we have to consider another type of chemo regime and avoid the use of bleomycin. In addition, Clinicians should identify this type of drug reaction early and prompt action should be taken seriously.

Case report

A 34 year- old gentleman presented with maculopapular rashes over both shoulders, abdomen, both upper limbs, right thigh two days after ABVD chemo regime for his type II A Hodgkin lymphoma. His main complaints were itchiness and small vesicles over the lesion but not pain. Initially, He was diagnosed as herpes skin infection and treated with IV aciclovir for 3 days. However, it had no shown any sign of improvement and we decided to stop the treatment [1].

One week later he was reviewed in haematology clinic for his another cycle of the same chemo regime named 1 B ABVD chemo. A day later he was admitted to hospital for generalised skin rashes with bilateral eyes swellings accompanied by intense itchiness. However, there were no mucosal involvement in the oral cavity. He was treated with high dose steroids and

antihistamine with good resolution of symptoms. Decision thereafter was not to employ bleomycin any longer as part of the chemotherapy regime [2].

On subsequent visits, his skin rashes improved significantly and only brown Coloured skin was left. Since he received another type of chemo regime avoid of bleomycin, no similar problems occurred to him and he tolerated the new chemo regime very well.



Figure : Bleomycin.



Discussion

Bleomycin is an antibiotic derived from the fungus *Streptomyces verticillus* and widely used as a chemotherapy drug. It causes DNA strand scission (breakages in the DNA strand), preventing cell replication. Bleomycin is an antitumor antibiotic chemotherapy drug used in the treatment of squamous cell cancers, some germ cell tumors, Hodgkin's and non-Hodgkin's lymphoma.

Bleomycin is mainly excreted from the body via the kidneys. It can also be inactivated in the body by hydrolase enzymes, the level of which varies in different tissues. There is a high rate of skin side effects when used intravenously to treat cancer because skin, in particular, has no bleomycin hydrolase activity.

Dermatological toxicity and mucositis are common side effects.

Skin side effects develop in approximately 50% of patients receiving systemic bleomycin.

Serious but uncommon side effects may include vascular effects leading to heart Attack anaphylactic reactions. Though initially believed to be associated with a cumulative bleomycin dosage, several reports have shown that severe reactions can occur even during the initial doses. Lack of detoxifying enzymes for bleomycin in the skin makes it a vulnerable site for the adverse effects of bleomycin [3].

In contrast to the bleomycin induced drug reaction, patients with herpes infection may present mainly with blisters, ulcers and pain. Those symptoms usually develop about 4 days after

exposure. There is no drug that can eradicate the herpes virus. However, antiviral medication such as Aciclovir prevents the virus from multiplying and works very well symptomatically.

Conclusions

In summary, Bleomycin induced drug allergy is one of the unwanted side effects and that can be mistaken for herpes skin infections leading to clinicians' management decision on the wrong side.

Careful history taking with thorough and systematic examination is of paramount importance to arrive at the correct diagnosis with appropriate management.

This case report illustrates the differences in the clinical manifestation of bleomycin induced drug reaction and herpes infection and highlighted the importance of thorough and systematic clinical examination that dictates the correct diagnosis with effective clinical management.

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Citation: Lwin ZT, Yong Z (2020) Bleomycin Induced Drug Allergy Mimicking Herpes Skin Infection: A Case Report. Glob J Medical Clin Case Rep 7(1): 034-035. DOI: <https://dx.doi.org/10.17352/2455-5282.000090>