



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

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### Abstract

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 which were mistaken for herpes skin infections a few days after receiving bleomycin. Using this case report, we emphasize the importance of distinguishing between herpes virus skin infection and drugs induced reaction and highlight the difference in management strategies.

**Keywords:** Bleomycin; Maculopapular rashes; Anaphylactic reaction

### Introduction

Bleomycin containing chemo regime is highly employed and effective in using for Hodgkin lymphoma cases. 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 [1]. In addition, Clinicians should identify this type of drug reaction early and provide prompt treatment to those affected.

### Case Presentation

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. He denied pain but itchiness and small vesicles over the lesion. He was treated with IV aciclovir for 3-4 days then stopped as it didn't help much.

One week later he was reviewed in hematology clinic for another cycle of the same chemo regime. Then, he received 1B ABVD chemo. A day later he was admitted to hospital for generalized rashes with bilateral eyes swellings accompanied by intense itchiness. But, there were no mucosal involvement in the oral cavity. He was treated with high dose steroids and antihistamine with good

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Figure 1: Bleomycin as part of the chemotherapy regime.



**Figure 2:** Chemo regime avoid of bleomycin.

resolution of symptoms. Decision thereafter was to avoid bleomycin as part of the chemotherapy regime (Figure 1).

On subsequent visits, his skin rashes improved significantly and only brown colored skin was left. Since he got another type of chemo regime avoid of bleomycin, he has got no more similar problems and tolerated very well (Figure 2).

## 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 [2,3].

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.

## Conclusion

In summary, bleomycin induced drug allergy is one of the unwanted side effects and that can mimic herpes skin infections leading to clinicians' management decision on the wrong side. This case report illustrates the differences in the clinical manifestation of bleomycin induced drug reaction and herpes infection.

## References

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