

Drug-induced glove and stocking distribution rash: A rare entity in the intensive care unit

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Abstract

Glove and stocking distribution rash has previously been reported with viral infections like parvovirus etc. Drug induced glove and stocking distribution rash is very rare. We hereby report such a rash associated with vancomycin as part of pharmacovigilance.

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A rash in the glove and stocking distribution is rare and was first reported by Hamm and Feldman in their case series.¹Till date there are more than 70 reports published in which the causative agent was found to be a virus- most commonly parvovirus B-19.² On the other hand, drug causing glove and stocking distribution rash is extremely rare. Other than rare cases of Cotrimoxazole-associated stock and glove rash, acute adverse cutaneous drug reactions manifesting as a glove and stocking reported in literature is absent, to the best of our knowledge.³Written informed consent was obtained from family.

A 45-year old gentleman admitted in our intensive care unit following traumatic brain injury developed central line associated blood stream infection for which culture based vancomycin was started. Within 30 minutes, following administration of first dose of vancomycin patient developed an erythematous macular rash with

a striking glove and stocking distribution on all the four limbs sparing of face and trunk (Figure 1). The development of the rash was also associated with hypotension which was managed by fluid boluses. However, this episode was not accompanied by fever, bronchospasm or shortness of breath. Further administration of vancomycin was withheld and was replaced with teicoplanin. The rash healed with desquamation over 4-5 days following stoppage of the offending drug, with no long-term cutaneous sequelae.

Red-man reaction is the most common cutaneous adverse drug reaction following vancomycin administration with an incidence of up to 47%. Generally, it comprises of a pruritic erythematous rash over face, neck and torso occurring within 1 hour of first vancomycin administration. Hypotension and shortness of breath are also not uncommon.⁴ The effects are generally relieved with administration of antihistamines and supportive care. A rash in the glove and stocking distribution is traditionally associated with viral infection especially parvovirus B-19 although association with cotrimoxazole has also been reported.^{2,3} In our case, the patient had no evidence of any viral infection and vancomycin was the only new drug added to the patient treatment. The rash developed within 30 minutes of drug administration and was also associated with hypotension, thereby showing a temporal causal association. Moreover, the rash resolved after withdrawal of vancomycin.

Drug-induced cutaneous drug reactions are a frequent occurrence and are reported as part of pharmacovigilance. To the best of our knowledge, such an atypical cutaneous adverse reaction with vancomycin, probably a variant of Red Man syndrome has not been reported in clinical literature so far. It is important for clinicians – particularly intensivists, to be aware and vigilant of this rare manifestation of vancomycin-induced skin reaction.

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Legend

Figure 1. A. Erythematous rash in glove distribution. B. Erythematous rash in stocking distribution (healing phase)

