

A Challenging Eruption

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ABSTRACT

Eruptions from drugs are among the most frequently reported adverse events. The most frequent etiologic agents include antibiotics and nonsteroidal anti-inflammatory agents. These eruptions are also a frequent source of visits to dermatology offices. Many of the inciting agents are known and have been well described. Frequently implicated drugs include antibiotics, nonsteroidal anti-inflammatory medications, and anticonvulsants. This case report reviews a drug eruption that has not yet been noted, despite years of experience with the class of drug involved in this case, and the literature associated with it.

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INTRODUCTION

Drug eruptions are responsible for significant numbers of visits to the dermatologist each year. Typically, the eruptions begin approximately 10 to 14 days after the initial exposure to the drug. Certain types of drugs are known to incite cutaneous reactions with greater frequency, such as antibiotics, anticonvulsants, and nonsteroidal anti-inflammatory agents. Patients will usually relay information about these drugs to their physician during routine questioning. Some patients will not remember taking a specific drug, and the dermatologist must specifically ask about antibiotics and other medications taken during the typical interval that precedes the onset of an eruption. However, patients are reluctant to mention or discuss their use of certain drugs, such as those used to treat erectile dysfunction (ED).

CASE REPORT

A 72-year-old male presented with a new cutaneous eruption. He had been in good health until 4 days before presentation, when a pruritic eruption began on his torso and lower extremities. He denied having any allergies and stated that he had not changed any of his medications.

A review of systems was negative for any travel, new drugs, recent illnesses, or exposures. The patient had no prior dermatologic history and denied any symptoms of respiratory or urinary infection.

Physical examination revealed urticarial-like papules on his abdomen, chest, and legs (Figure 1). Morbilliform lesions were also noted (Figure 2). No bullae, vesicles, pustules, or targetoid lesions were noted, and no sloughing was apparent. The patient had no fever, chills, or other systemic complaints.

The presumptive diagnosis was a toxic exanthem from either a viral agent or other antigen. Upon more detailed questioning, the patient confided that the eruption followed his taking of vardenafil HCl (Levitra, Bayer HealthCare Pharmaceuticals, West Haven, CT). He stated that this rash had previously occurred

with use of this drug in the past. The eruption followed ingestion of the drug by 12 hours in both instances. Previously, the eruption came and went rapidly with no discomfort. However, because of the persistence and pruritus of the current eruption, the patient was concerned and presented for evaluation.

Treatment for this patient consisted of high-potency topical steroids. The eruption resolved within a matter of days. Because of the temporal association and repetitive nature of the rash, and the rapid resolution of the eruption, a biopsy was not performed.

DISCUSSION

Vardenafil HCl is classified as a selective inhibitor of cyclic guanosine monophosphate (GMP)-specific phosphodiesterase type 5 (PDE5).¹ During normal activity, nitric oxide release activates guanylate cyclase, increasing cyclic GMP. This causes smooth muscle relaxation with subsequent increased blood flow. Vardenafil HCl, as well as the other drugs used to treat ED, work to increase GMP by inhibiting the degradation of PDE5. This inhibition creates higher levels of GMP, which in turn lead to greater blood flow.

There are many known adverse events associated with the use of this drug, including cardiovascular events, priapism, headaches, flushing, and rhinitis.¹ Sudden sensorineural hearing loss has also been reported with this drug.² Although loss of vision has been reported with the use of ED drugs, it appears that men who use these drugs suffer visual complications at the same rate as men in the general population.³

The frequency with which dermatologic complications occur with this family of drugs is not known. Photosensitivity, pruritus, and rash are also listed as potential adverse reactions, though unfortunately the type of rash has not been elucidated.¹

A review of the presently available literature in the PubMed database using the search terms *vardenafil* and *rash* revealed

FIGURE 1. Urticarial plaques are noted on the torso. Scattered adjacent to these plaques are smaller red plaques. No bulla or targets are noted.



FIGURE 2. A more morbilliform eruption is noted on the arms. One- to 2-mm pink and red papules were noted.



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no reports of rashes associated with the use of this drug. Reports of cutaneous eruptions from ED drugs are sparse. These drugs may be used to reduce the frequency of symptoms associated with Raynaud's disease in patients with cutaneous systemic sclerosis.⁴

CONCLUSION

Patients present to dermatology offices with various eruptions, and dermatologists must ferret out which ones are potentially dangerous and advise patients about what should be avoided

in the future. Unfortunately, in some instances, patients are reluctant to disclose their medication history. In some instances, this reluctance stems from the fact that the agents consumed were illicit. However, in other instances, patients may simply be reticent to mention medications used to treat conditions such as ED. When dealing with an eruption that appears to be drug related, it is worth pursuing a detailed medical history and speaking with the patient privately. Phosphodiesterase inhibitors are used with increasing popularity, and it behooves dermatologists to think about them when a patient presents with a rash. Unfortunately, there is a paucity of information about morphologies of these eruptions, and even less information is available about their histopathology.

This case documents a significant morbilliform and urticarial eruption following vardenafil HCl therapy and discusses the treatment used for the referenced patient. Fortunately, the eruption came and went quickly, without significant intervention or sequelae. A review of the literature for this drug and others in this category revealed surprisingly little information about their association with cutaneous eruptions. Physicians should be aware of this type of reaction and question patients who present with a similar eruption.

DISCLOSURES

The author has no relevant conflicts of interest to disclose.

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