

Levamisole-Induced Occlusive Necrotizing Vasculitis of the Ears After Use of Cocaine Contaminated with Levamisole

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Abstract Based on the best available data, approximately 2.1 million Americans use illicit cocaine each month; for the last several months, 30% of that cocaine has been “cut” with a veterinary pharmaceutical, levamisole. Levamisole can cause agranulocytosis, leaving patients susceptible to fulminate and opportunistic infections and also can cause a debilitating cutaneous necrotizing vasculitis. In this manuscript, we describe a case and provide an image of levamisole-induced necrotizing vasculitis of the ears.

Keywords Levamisole · Vasculitis · Cocaine · Necrotizing

Question/Scenario

A previously healthy adult male presented to the emergency department in severe pain with bilateral, purple discoloration of his ears over the past 12 h. He reported a history of nasal cocaine use (nine hours prior) and denied recent intravenous drug use. He was in moderate discomfort with

stable vital signs. On physical examination he had bilateral necrosis of his ears (Figs. 1, and 2) as well as left upper arm and right second toe discoloration. The remainder of his physical examination was normal with notable absence of a cardiac murmur. He had a normal chemistry panel and lactate, low white blood cell count (1,900 cells/mm³), and cocaine metabolites on urine toxicology screen. The patient received 10 mg of subcutaneous phentolamine to both ears without improvement. A cardiac echo was negative for endocarditis. Toxicology, Rheumatology, and ENT were consulted. What was the likely etiology of this patient's presentation?

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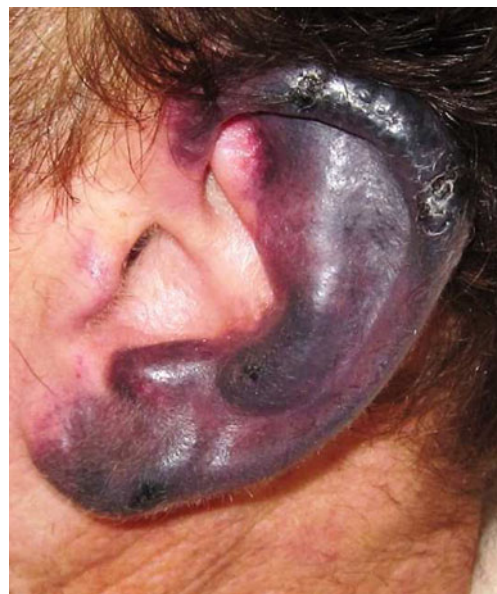


Fig. 1 Image showing necrosis of the patient's left ear



Fig. 2 Image showing necrosis of the patient's right ear

Answer/Discussion

Given the prevalence of levamisole found in cocaine in the Denver area, the patient's low WBC, and historical evidence of levamisole-induced occlusive necrotizing vasculitis, a levamisole level was sent. Qualitative urine

levamisole was positive. The patient was discharged with a diagnosis of levamisole-induced occlusive necrotizing vasculitis. Levamisole was originally developed as an antihelminthic agent and is approved as adjuvant chemotherapy, for the treatment of colon cancer. Levamisole-induced occlusive necrotizing vasculitis is an uncommon side-effect of levamisole. Reports of ear lobe and cutaneous necrosis have been reported in the literature after levamisole was used to treat various cancers, nephrotic syndrome, and rheumatologic disorders [1, 2]. Treatment is primarily supportive with cessation of the offending agent; however, steroids have been used in some cases with success.

References

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