

Illicit drug cutaneous outcomes - Case Studies:

What the Wound, Ostomy and Continence Nurse needs to know

Cynthia Walker, MSN, APRN-CNS, CWON and Rachel Moseley, MS, BSN, RN, CWON, APHN



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Introduction

Rising numbers of cocaine users are presenting to local emergency rooms with atypical skin lesions including purpura, bullae and/or necrosis. Wound findings may be generalized or localized to nose or ears. WOC nurses are consulted in care collaboration of skin and soft tissue involvement related to wound management of this atypical presentation. These wounds may be similar in appearance to leukocytoclastic vasculitis, calciphylaxis, Coumadin necrosis, or even deep tissue injury pressure injury.

Statement of Clinical Problem

Historically, intravenous drug users commonly experience **cutaneous acute and chronic wounds ranging from**

- Cellulitis
- Superficial and deep abscesses
- Necrotizing fasciitis
- Chronic venous stasis ulcers¹

New skin issues have been associated with cocaine use. **Levamisole is a veterinarian antiparasitic agent that was banned for human use in 1999 in the U.S. and 2003 in Canada²** because of serious side effects of neutropenia, agranulocytosis and vasculitis. It is being used an adulterant that is cut into cocaine because it:

- promotes mood enhancement
- is inexpensive and widely available
- has similar appearance, taste, and melting point as cocaine

It is estimated that over 70% of street cocaine is cut with levamisole. 1,3

Clinical Presentation

Patient Presentation: Identified three patients who presented to the hospital with large, well demarcated purpuric/hemorrhagic plaques and rash on varied anatomical locations including legs and arms on all and ears and noses on two.



	Patient #1 47 y/o white female	Patient #2 42 y/o white male	Patient #3 53 y/o white female
Illicit Drugs Noted	Heroin + Cocaine + Marijuana +	Heroin + Cocaine+	Heroin+ Cocaine + PCP +
Comorbidities	Hepatitis C Smoking Rheumatoid Arthritis Anemia	Hepatitis C Smoking	Hepatitis C Smoking Rheumatoid Arthritis Profound Anemia
Labs	WBC 10 Hgb 10 HCT 33 ESR 49 CRP 10	WBC 10 Hgb14 HCT 40 ESR 5 CRP 20	WBC 4 Hgb 5 HCT 17 ESR 57 CRP 4

DX: Levamisole-induced vasculitis

Clinical Approach/Outcomes

Description of Past Management: As this is a recently recognized cutaneous reaction, no standard of optimal care has been identified in the literature.

Current Approach: Surgical team collaborated and concurred with the WOC Nurse recommendations of an initial conservative approach utilizing topical care, antimicrobial ointments with foam dressings. Extensive escharotic wounds evolved over the next months in all cases necessitating robust surgical debridements and advanced topical wound care management.

Patient	Treatment	Outcome	Notes
#1	3 OR trips with skin grafts, NPWT	Healed 4 months, recurred	New cervical cancer diagnosis
#2	11 OR trips with skin grafts and AKA, NPWT	Healed 3 months, lost to follow up	Lost to follow up
#3	Bedside debridements, compression	Unhealed at 6 months	Gastric ulcers noted

Outcomes



Conclusions

Extensive intradisciplinary collaboration was required between

- Certified Wound, Ostomy and Continence Nurse
- Frontline nursing team
- Surgery, General and Plastics
- Infectious Disease
- Dermatology

WOC Nurses' early identification of levamisole's catastrophic cutaneous effects is paramount to tissue viability, skin/wound care management, and community related drug awareness interventions.

References

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Contacts

Rachel Moseley email rmosele1@jhmi.edu 410-550-6707
Cynthia Walker email cwalke33@jhmi.edu 410-550-5951