Illicit drug cutaneous outcomes- A Case Study:
What the Wound, Ostomy, Continence Nurse needs to know
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Introduction
Recently, rising numbers of cocaine users are presenting to local emergency rooms with atypical skin lesions with purpura, bullae and/or necrosis. Wound locations may be localized to nose or ears, or be generalized. Wound Ostomy Continence nurses are often consulted for wound management recommendations and care collaboration regarding skin and soft tissue involvement associated with this atypical presentation. These wounds may be similar in appearance to leukocytoclastic vasculitis, calciphylaxis, Coumadin necrosis, or even deep tissue injury pressure ulcers.

Statement of Clinical Problem
Historically, intravenous drug users commonly experience cutaneous acute and chronic wounds ranging from
- Puffy hand syndrome
- Cellulitis
- Superficial and deep abscesses
- Necrotizing fasciitis
- Chronic venous stasis ulcers
New skin issues have been associated with cocaine use. Levamisole is a veterinarian antiparasitic agent that was banned for human use in 1999 because of serious side effects of neutropenia, agranulocytosis and vasculitis. It is being used as an adulterant that is cut into cocaine because it:
- Promotes mood enhancement with antidepressant effects
- 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.

Clinical Presentation
43-year-old female with past medical history significant for polychondritis, rheumatoid arthritis, asthma and hepatitis C who came to the ER because of diffuse excruciating pain and hemorrhagic rash.

Social History: The patient smokes up to 2 packs per day since the age of 11 and has cut down to 1/3rd of pack a day. She smokes marijuana every day and inhaled cocaine in the remote past, denies current use. Lives alone.

Physical Findings: On the right and left upper extremity, most prominent on the dorsal hands, are retiform, stellate purpura with some hemorrhagic bullae. RLE: most prominent on the anterior thighs and dorsal feet are retiform purpuric plaques with hemorrhagic bullae and erosions.

Tox screen positive for cocaine
Consults: WOCN, Dermatology, Rheumatology, Infectious Disease, Burn/Plastics

DX: Levamisole-induced vasculitis

Photos

Treatment Plan:
- WOC nurse, in collaboration with surgical team recommended initial conservative topical approach with silver foam dressings
- Extensive escharotic wounds evolved over following months requiring multiple surgical debridements
- Autografting with negative pressure wound therapy by the Burn/Plastics surgical team.

Outcomes: Initial grafting failed and patient continued to require advanced wound care with home health nursing. Subsequent grafting was successful and wounds healed after eight months.

Conclusions
Extensive intradisciplinary collaboration was required between
- Certified Wound Ostomy Continence Nurse
- Surgery, General and Plastics
- Infectious Disease
- Dermatology

There are case studies and reports in the literature, but little is known about the optimal management and treatment of these cutaneous lesions. Wound Ostomy Continence 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
http://dx.doi.org/10.2500%2Far.2014.5.0101.

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