**Introduction**

- Levamisole is an anti-parasitic drug used in the veterinary setting. It is a frequent cocaine contaminant found in about 60-70% of samples in the United States.
- Cocaine contaminated with this substance is linked to antineutrophil cytoplasmic antibodies (ANCA) associated vasculitis.
- As in the last decade, cocaine use worldwide has been increasing, levamisole/cocaine-induced vasculitis has become a clinically significant entity.

**Case Presentation**

- 35-year-old woman with a history of polysubstance use, including cocaine, presented to the hospital after found down at her house.
- Physical exam was significant for obtunded state and was intubated for airway protection.
- Skin exam was remarkable for bullous and gangrenous lesions on her toes (figures 1 and 2) and purpuric lesions over the lateral hip and forearm.

**Work-Up**

- Labs significant for: WBC 11.8, BUN 52, Creatinine 7.76, CPK 31,800, CRP 13.
- Blood cultures were negative, and echocardiogram was negative for vegetations.
- Urine drug screen positive for methamphetamines, benzodiazepines, marijuana, opioids, and cocaine.
- Autoimmune workup was positive for cytoplasmic ANCA (c-ANCA), proteinase 3 (PR-3).
- CT chest without contrast showed left lung consolidation.
- For tissue diagnosis of vasculitis, kidney biopsy was obtained but was negative for ANCA-associated glomerulonephritis; pathology showed evidence of acute tubular necrosis.

**Hospital Course**

- Due to high suspicion of levamisole-contaminated cocaine-induced vasculitis, supportive care with hemodialysis for acute renal failure was started.
- Broad-spectrum antibiotics were started for aspiration pneumonia, and later weaned off ventilator.
- Management for levamisole-induced vasculitis was mainly supportive. She was discharged to home.
- She eventually underwent amputation of her 4 toes for gangrene.
- Her kidney function has returned to normal.

**Conclusion**

Our case report demonstrates some typical and atypical features of levamisole/cocaine-induced vasculitis, which should be considered when encountering patients with a cocaine use history and skin lesions.

**Discussion**

- Levamisole/cocaine-induced vasculitis often affects the skin with gangrenous changes involving the face and trunk, while our patient’s lesions were more prominent in her hands and feet.
- In a case series of cocaine-induced vasculitis with skin involvement and no organ involvement, the majority showed improvement with systemic corticosteroids.
- The use of steroids is often determined by whether there is neutropenia, common component of levamisole/cocaine-induced vasculitis, which could predispose these ill patients to fulminant infections.
- Steroids remain the mainstay of treatment if there is end-organ damage due to the intense inflammatory process.
- In another study, several patients improved without specific treatment.

**References**


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