

Not a Phantom Blue Limb : Obstruction or Spasm Conundrum

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Introduction

Acute limb ischemia (ALI) is a vascular emergency, mostly caused by diminished limb blood flow due to peripheral artery occlusion. Vasospasm is a very rare etiology of ALI, and only few cases reported in the literature described ALI due to cocaine or other strong vasoconstrictor agents. Hence, the conundrum.

Case description

A 60-year-old male with underlying DM, HTN, CKD, HFrEF with AF, presented to emergency department with 3 days history of bilateral lower limb pain and bluish discoloration (**Figure A**) and chest pain. He was a chronic substance abuser and symptoms started shortly after snorting some substance. He was also tachypneic and diaphoretic. Physical examination revealed prolonged capillary refill time, cold peripheries, irregular pulses and cyanosis over all limbs with no palpable distal pulses. His BP was 162/116mmHg and heart rate of 111 beat per minute. Blood investigations were unremarkable, and electrocardiogram (ECG) showed rate-controlled atrial fibrillation (**Figure C**). Bedside point of care ultrasound of heart, aorta and venous shows no evidence of aortic dissection or thrombus, however 10 panel bedside urine toxicology tests were positive for Amphetamine and Methamphetamine. He was started on Intravenous Glyceryl Trinitrate (GTN) infusion following which, his symptoms improved tremendously (**Figure B**). Case was also referred to the surgical team to rule out aortic dissection or clot in transit, however, in view of improving signs and symptoms, no CT angiogram was done. Patient was admitted to Medical ward for one week, treated for acute decompensated heart failure secondary to bilateral lower limbs cellulitis, given intravenous Frusemide and antibiotic in ward.



Figure A

Figure B

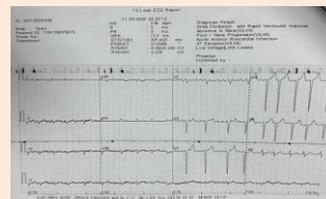


Figure C

Discussion

The initial management of typical ALI is to prevent thrombus propagation with intravenous infusion of unfractionated heparin and exclusion of other differentials, while planning for Ultrasound Doppler or CT angiogram to decide on further intervention strategies. In this case, immediate referral to Surgical team was done, however the team did not proceed with imaging, as symptoms resolve completely, likely due to resolving vasospasm caused by acute on chronic substance abuse usage. The ideal management should be simultaneously searching for any evidence of dissection or thrombosis and at the same time to treat the substance abuse toxidromes with appropriate medication strategies.

Conclusion

In patients with substance abuse and significant comorbidities presented with peripheral limb insufficiencies, the cause needs to be investigated, the toxidromes need to be thoroughly examined and treated with multimodal approach. Careful comprehensive history taking and physical examination is valuable for overall patient management.

Keywords : Vasospasm, acute limb ischemia, sympathomimetics mimic

Reference:

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