

A VIOLACEOUS CATASTROPHE

SALHA MOHD FADIL¹, NABEELA AZMI¹, SE NG¹

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¹UNIVERSITY OF MALAYA, KUALA LUMPUR, MALAYSIA



Introduction

Acute limb ischemia (ALI) is an emergent medical condition warranting time-sensitive intervention. Early recognition of presentation is integral for limb loss prevention and prompt management of its catastrophic complications.

Case Report

A 89-year-old patient was referred to emergency department for bluish discoloration of left leg for one week. Her past medical history included hypertension, gout and Alzheimer's disease. She was seen 1 week prior in private clinic with history of intermittent pain and bluish discoloration over sole of left foot in which she was discharged home with no intervention. She presented again with aggravation of the pain and blue purplish discoloration up to her knee. Her left leg popliteal and pedal pulses were absent. A diagnosis of acute limb ischemia was made followed by an urgent referral to the vascular team. Intravenous infusion of heparin was promptly initiated, unfortunately, she developed cardiac arrest and succumbed to death despite resuscitation.



Picture 1: The bluish- purplish discoloration of left lower limb till below knee level.

Discussion

The 6 Ps (Paresthesia, pain, pallor, pulselessness, poikilothermia, paralysis) comprises the classical presentation of ALI patient. The assessment of patients with suspected ALI should also include palpation/ auscultation of Doppler pulses for determination of perfusion pressure via ankle-brachial index (ABI) ratio. Adequate perfusion pressure is maintained when ratio exceeds 0.9.

Category	Sensory Impairment	Motor Impairment	Arterial Doppler Signal	Venous Doppler Signal
Class 1- No immediate threat	No	No	Audible	Audible
Class 11a- Marginally threatened	Minimal in the toes or none	No	Often Inaudible	Audible
Class 11b- Immediately threatened	Involves forefoot +/- rest pain	Mild to moderate	Usually Inaudible	Audible
Class 111- Irreversible	Anaesthetic	Paralytic/ rigor	Inaudible	Audible

Table 1: Clinical Staging of Acute Limb Ischaemia

Initial treatment for any suspected ischemic extremity should consist of immediate administration of weight-based IV heparin bolus (80 units/kg) and associated continuous IV infusion (18 units/kg/hour) barring any contraindications. Immediate full dose heparinization can result in symptomatic improvement either from anticoagulation effects of heparin or volume expansion. It may also prevent proximal and/or distal thrombus propagation and preserves the microcirculation. The extremity should also be placed in dependent position to maximize perfusion and have any constriction removed while maintaining the limb at warm temperature. Patients should then be assessed for definitive treatment which may consist of percutaneous angioplasty, bypass grafting or even amputation.

Conclusion

Acute limb ischaemia is a time sensitive condition. Apart from timely diagnosis, attention to patients with ALI should not be directed to the limb but the patients' general medical condition as well. Patients with acute limb ischaemia tend to have multiple comorbidities and resuscitation of ongoing ischemia will usually be complicated further with concurrent shock, acidosis and arrhythmias. These conditions requires meticulous and multidisciplinary input to ensure a favourable outcome for the patient.

Declaration

The authors named above have no conflicts of interests to declare.

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