SAS Journal of Medicine ISSN 2454-5112
SAS J. Med., Volume-1; Issue-4 (Nov-Dec, 2015); p-149-151
Available online at http://sassociety.com/sasjm/

Case Report

Acute Limb Ischaemia: Perspective view of management of patients of Acute Limb Ischaemia beyound the Golden Hour, High Altitude induced (hyper coagulable state) induced ischaemia

Dr (Col) Siddharth Mishra[1], Dr (Col) Niranjan Dash[2]
[1]Associate Prof, Dept of Medicine, CH (SC), AFMC, Pune, Maharashtra, India
[2]Prof, Dept of Surgery, PDVPPF Medical College, Ahmednagar, Maharashtra, India

***Corresponding author**
Niranjan dash
Email: niranjan_dash@yahoo.com

Abstract: Acute Limb Ischaemia (ALI) is defined as sudden decrease in limb perfusion that threatens the viability of the limb. Symptoms depend on the severity of hypo perfusion. The management also depends on the severity of hypo perfusion as well as the time interval of arrival on hospital and the onset of cold environmental trauma. We report two cases of ALI successfully managed after the Golden Hour of ischaemia of the limbs.
Keywords: Acute Limb Ischaemia (ALI), necrosis, amputation

INTRODUCTION

The incidence of ALI is approximately 15 cases per 10,000 persons per year [1]. Causes of ALI include acute thrombosis of limb artery or embolisation from the heart or diseased artery or trauma. The clinical presentation is considered to be acute if occurs within 2 weeks. The rapid onset of limb ischaemia results from sudden cesation of blood supply and nutrients to metabolic active tissue of the limb, including skin, muscle and nerves [2, 3]. We report two cases of ALI presented with paralysis of the limbs and they were managed effectively with thrombolysis and minimal surgery.

Case 1

A 50 yrs male, smoker for last 15 yrs, serving at high altitude area without co morbidities developed sudden onset of tingling and weakness of (rt) lower limb and was not able to get up from sqatting position. He was taken to a peripheral hospital and was found to be having (rt) cold lower limb with cyanosis of toes. He had also paralysis of lower limb up to knee joint & absence of popliteal pulsation. He was evacuated to a higher medical centre in next 08 hours. (Beyound golden hour) He had Gr 0 power of (rt) leg below the knee. Systemic examination was within normal limits. Laboratory examination was not contributory except polycythaemia. CT angiography (rt) low limb revealed occlusion of (rt) popliteal artery. Fig – 1. He was started with Inj Heparin 500 units, inj Streptokinase 10 lacs units followed by 1 lac per hour infusion, tab clopid 300mg start and tab Disprin 150mg OD. By evening 1800 hrs cyanosis disappeared and limb perfusion was satisfactory. By 2000 hrs movement around knee was Gr IV. Patient is doing well at present after 01 yrs of follow-up.

Case 2

A 48 yrs old male presented with sudden onset of severe pain followed by weakness and loss of sensation (rt) lower limb. He was hospitalised after Golden Hour because of high altitude area and difficult terrain. On examination he had tachy cardia. Right low limb was pale with cyanosis of toes. Power below (rt) knee was Gr 0, (rt) Hip Gr III. Femoral pulsation was present but popliteal pulsation was absent. Other systems were within normal limits. CT angiography revealed partial block of (rt) femoral artery and complete block of (rt) popliteal artery. Fig – 2. He was managed by inj Heparin 5000 units; tab Disprin 75mg OD, Clopid 75mg OD. Systemic thrombolysis was done by 10 lacs units of Streptokinase. Both below and above knee fasciotomy (rt) was performed. After 06 hrs of medical and surg management patient was comfortable, (rt) popliteal was palpable and the muscle power grading improved. Patient is doing well at present after 01 yrs of follow-up.

Fig – 1 (case-1)

Fig-2 (Case-2)

DISCUSSION

Acute Limb Ischaemia (ALI) deserves special attention because: 1) Despite urgent revascularisation with thrombolytic agents or surgery, amputation occurs in 10 to 15% of cases 2) Death and complication rates are high (15 to 20% die within 1 yr) [3]. Below knee amputation in next 2yrs is 30% and above knee amputation in 15% cases [3]. Fortunately in our two cases both are surviving for last 1 year of follow up without adding any associated morbidity. This can be explained due to high altitude the aetiological factor which is being withdrawn following 1st episode. The 1st case is managed without surgery and the 2nd case is managed by fasciotomy only without amputation.

Diagnosis of ALI based on claudication with 80 to 90% senstivity and more than 95% specificity [3, 4]. In our two cases, the 1st one had pain, paraesthesia and weakness and the second one had severe pain. Risk Factors: Having smoking more than 24 cigarettes per

day, obese (BMI: 34,60kg/m2) and family history of cardio vascular disease are important risk factors of ALI [3, 4]. In our two cases no 1 had the history of smoking. But both cases were probably due to high altitude induced polycythemia.

CT Angiography established the diagnosis in both the cases. Case 1: Popliteal block and Case 2: Partial femoral and complete Popliteal Block. ALI is usually treated by Medicine or Surgery in form of either endovascular surgery or open surgery (fasciotomy/amputation). Thrombolysis is usually problematic because of bleeding and necrosis in lower extremity [5]. However we could manage effectively in 1st case without catheter thrombolysis. The second case needed fasciotomy for compartmental syndrome and we were successful for early surgical intervention.

CONLUSION

Diagnosis of ALI is based on clinical examination and radiological investigation. Early diagnosis and prompt treatment by medical and surgical intervention are important to avoid complications.

REFERENCES

1. Edwin Nugro Njoto; Acute Limb Ischemia: Case Report. CDK – 211/, 2013; 40(12): 913-16.
2. Creager MA, Kaufman JA, Conte MS; Acute Limb Ischaemia. N Eng: Med 2012; 366-2198-206.
3. ESC guide line on the diagnosis and treatment of Peripheral artery disease. Europe. Heart J 2011: 32: 2851 – 906.
4. Leng G, Fowkes F; The Edinburgh claudication questionnaire an improved version of the WHO/Rose Questionnaire for use in epidemiological survey. J clin Epidemiol 1992; 45: 1101-9.
5. Morison Hi; Catheter directed thrombolysis for acute limb ischemia. Semin Intervent Radiol. 2006; 23(3): 258-69.