

Acute limb ischemia: A case report

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Abstract:

Acute limb ischemia(ALI) is a sudden decrease in limb perfusion that may threaten limb viability. The most common cause is acute arterial total or near-total occlusion. Mortality and morbidity rate were high even after surgical or endovascular intervention. Early recognition and revascularization are essential. A case of ALI is presented to illustrate the diagnostic and therapeutic approach.

Case report:

A 54-year-old man had history of ascending colon adenocarcinoma status post right hemicolectomy, sick sinus syndrome and complete atrioventricular block status post permanent pacemaker implantation, hypertension, type 2 diabetes mellitus and coronary artery disease. He presented with acute onset of numbness, pain and weakness of the right leg. Vital sign in emergency department revealed blood pressure 217/88 mmHg, body temperature 36.5 Celsius degree and heart rate 91/min. Physical examination revealed weak pulsation of right dorsal pedis artery, and swelling and erythema of the right leg(Figure 1). Electrocardiography showed atrial fibrillation and pacemaker ventricular pacing rhythm (Figure 2) . Laboratory data revealed leukocytosis and hyperglycemia. Computed tomography of the right lower extremity demonstrated an acute thrombosis with total occlusion from right common femoral artery(CFA) to superficial femoral artery(SFA).

The patient underwent endovascular therapy with balloon angioplasty and thrombus fragmentation. The flow of SFA was restored after angioplasty but distal embolization of thrombus was noted to popliteal artery. Consequently, a multi-hole infusion catheter was placed over popliteal artery. Intra-arterial infusion with Urokinase 1,000,000 units for 24 hours and Enoxaparin were administered. His right lower limb became warm during therapy and his symptoms improved. Angiography was repeated on the next day. Flow of popliteal artery was restored. Mild reperfusion tissue swelling of the right leg was observed. Finally, the patient was discharged with non-vitamin K anti-coagulant Rivaroxaban.

DISCUSSION

Acute limb ischemia is related to high possibility of limb amputation, severe complication such as reperfusion injury, and mortality. It is essential to achieve early recognition and diagnosis. Revascularization in viable case as soon as possible plays the major role in limb rescue and complication prevention. Surgical intervention and endovascular treatment are effective choices with quick response. Available treatment must be chosen rapidly in this emergent disease. In our case, endovascular therapy was decided. Blood flow of the acute ischemic limb was restored effectively with the minimally invasive procedure.

CONCLUSION

Acute limb ischemia (ALI) is a critical condition with high mortality and morbidity rate. Early recognition and early revascularization are essential. Endovascular treatment is one minimally invasive procedure with effect and quick response.