

“Nobody is dead until is warm and dead”: a case report from Graian Alps.

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Argomento: Trauma e arresto cardiaco

Introduction

Accidental hypothermia (AH) is a known cause of cardiac arrest (CA). In this case, resuscitation is requested to continue till rewarming. We report a case of non-traumatic CA due to AH with return of spontaneous circulation (ROSC) after more than 6h from first medical contact.

Case report

A 25 years old male trail-runner, poorly equipped, suffered a witnessed collapse while on the mountains, at high altitude. His run mates were forced to leave him behind to seek help. 90 minutes later, rescuers found him in CA with a core temperature lower than 21°C and asystole as presentation rhythm. Advanced Life Support was started and continued throughout the resuscitation, carried forward during primary transfer and then in the local hospital. Mechanical Cardio Pulmonary Resuscitation was started to refer the patient to the nearest tertiary center.

Once arrived, after 240 minutes from first medical contact, plasmatic lactate and potassium were 5.8mMol/L and 6.8mMol/L respectively. Peripheral Veno-Arterial Extracorporeal Membrane Oxygenation (VA ECMO) was put in place with transesophageal echocardiography guide and active rewarming was started.

After 1 hour, when the core body temperature was 31°C, the patient developed ventricular fibrillation and was shocked. The rhythm changed to junctional bradycardia and then to sinus rhythm with ROSC, achieved at approximately 360 minutes from medical contact and possibly more than 400 minutes from CA.

ECMO and adrenaline support was maintained while the patient was transferred to the Intensive Care Unit with appropriate facial mimic and spontaneous movements to upper limbs.

Conclusion

The patient unfortunately died after seven days because of multi organ failure secondary to lower limb ischemia, developed after ECMO placement despite arterial shunts.

Our experience confirmed that in case of non-traumatic AH every effort should be carried on, even in cases in which clinical conditions and timing could cause serious concerns.