

**Theurapetic
hypothermia for
postresuscitation
syndrome and
lactate levels**

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Therapeutic hypothermia (TH) is recommended therapy that reduces ischemic injury after low blood flow. It should be initiated soon in patients with ischemic injury and mild hypothermia (32-35°C for 12-24 hours). Postresuscitation Syndrome (PRS) is a pathology that is performed after return of spontaneous circulation following successful cardiopulmonary resuscitation (CPR). The pathophysiology is referred to global ischaemia and reperfusion injury due to cardiac arrest and CPR. It is a kind of "septic inflammatory response syndrome". TH is an accepted and valuable treatment option for PRS presented with neurological and cardiovascular impairment and multi-organ dysfunction. Indication of TH for both initial rhythms of cardiac arrests including shockable and non-shockable rhythms are still underinvestigation.

Lactic acidosis contributes to the pathophysiology of PRS including neurologic impairment. However, lactate levels are also elevated during TH applications. Lactic acidosis injures and inactivates mitochondria. Increased lactate levels (3-5 mmol/L) associated with reperfusion and hypothermia may be treated by efficient oxygen delivery. While administering TH after CPR, hemodynamic values, organ function markers, lactat levels and neurologic status should be evaluated. During TH, at the point that reaches to goal temperature, lactate blood levels' stable or decreasing values are predictive for good neurologic outcomes. At that point still increasing values reveal worsening neurologic outcomes or mortality.

It is evident that TH is one of the important therapy of PRS. In my presentation, I will also represent our clinic's experience and studies about lactate levels and importance of follow up as a good biomarker of neurologic functions after CPR.

Biography

Sule Akin has completed her medical education in Cukurova University Medical School and also Anesthesiology and Reanimation Department. She is an Associated Professor in Baskent University Anesthesiology and Critical Care Medicine Department and works as a consultant. Her interests in the area are neuroanesthesia, anesthesia for orthopedics, thoracic surgery and organ transplantation, neuro and surgical-critical care and cardiopulmonary resuscitation. She works and teaches in these fields. She also has many national and international publications about the interested areas. She is the instructor and course-director of "European Resuscitation Council" and reviews for articles for national journals.