Severe rhabdomyolysis and acute kidney injury after critical limb ischemia and surgical reperfusion: a case report.

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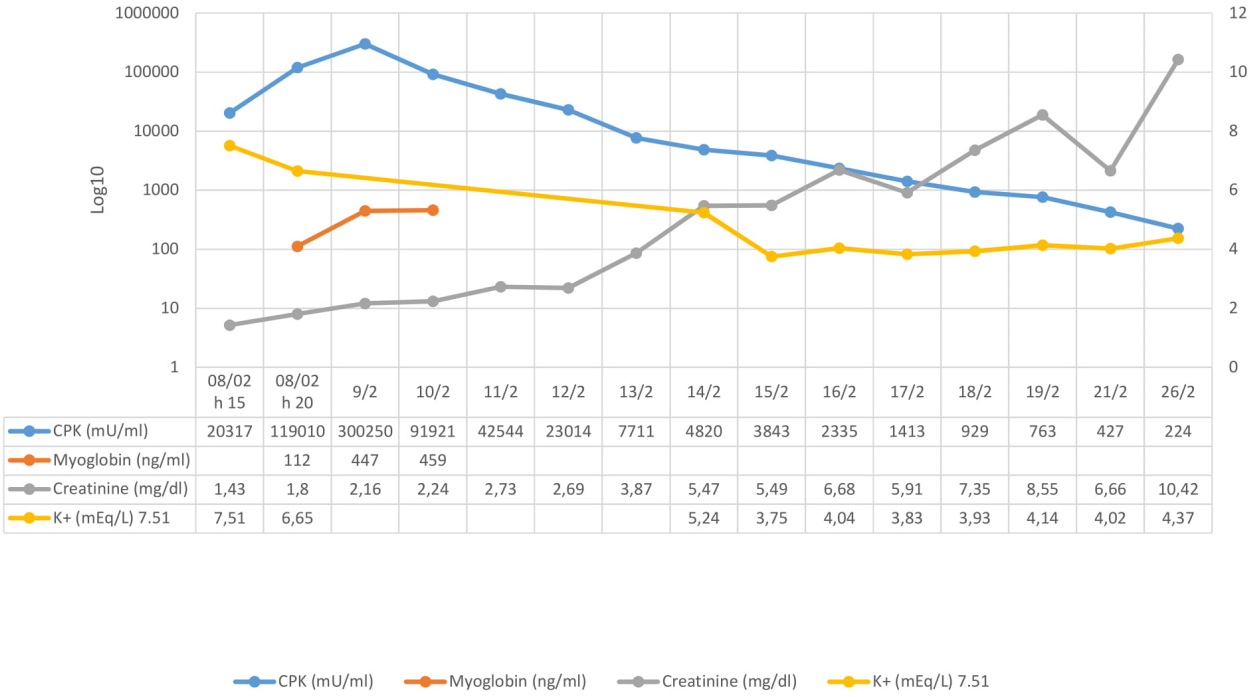
Argomento: Caso clinico

Rhabdomyolysis is a clinical syndrome characterized by severe acute muscle injury and release of intracellular contents in the bloodstream. Acute kidney injury (AKI) is one of the most serious and common evolution of this syndrome, caused by precipitation of myoglobin in renal tubules with subsequent tubular necrosis. Early and aggressive fluid resuscitation, correction of acidosis, administration of diuretics, mannitol and bicarbonate are the most important interventions to prevent acute renal failure. Furthermore electrolyte imbalances should be promptly addressed in order to avoid cardiovascular complications. We report a case of a 62 years old man with acute critical left lower limb ischemia due to femoral tripod thrombosis complicated by omolateral compartment syndrome and contralateral acute popliteal and anterior tibial artery thrombosis, treated by surgical reperfusion and left lower limb fasciotomy. Acute tubular necrosis, increased blood lactates and severe AKI with hyperkaliemia and major increase in serum CPK quickly developed. Despite maximal medical therapy with aggressive fluid resuscitation, bicarbonate infusion and diuretic therapy, kidney function continued worsening. The patient was admitted to ICU and CRRT treatment was started 7 hours after the reperfusion of the lower limbs, allowing it allowed acid-base equilibrium to re-establish while a controlled washout of the myoglobin and CPK was obtained. In case of severe rhabdomyolysis, intensive monitoring, early and aggressive medical therapy and prompt CRRT might be recommended., while renal function never reached complete recovery.

Conclusion: In case of severe rhabdomyolysis, intensive monitoring, early and aggressive medical therapy and prompt CRRT might be recommended in order to minimize acute kidney injury.

Table 1: Graphic trend of CPK, myoglobin, creatinine and potassium blood levels during hospitalization.



	08/02 h 15	08/02 h 20	9/2	10/2	11/2	12/2	13/2	14/2	15/2	16/2	17/2	18/2	19/2	21/2	26/2
CPK (mU/ml)	20317	119010	300250	91921	42544	23014	7711	4820	3843	2335	1413	929	763	427	224
Myoglobin (ng/ml)		112	447	459											
Creatinine (mg/dl)	1,43	1,8	2,16	2,24	2,73	2,69	3,87	5,47	5,49	6,68	5,91	7,35	8,55	6,66	10,42
K+ (mEq/L) 7.51	7,51	6,65						5,24	3,75	4,04	3,83	3,93	4,14	4,02	4,37