Rhabdomyolysis after acute myocardial infarction - case report

Faruk Čustović*,
Edin Begić,
Anela Šubo,
Bilal Oglečevac,
Denis Mačkić

General Hospital "Prim. dr.Abdulah Nakaš", Sarajevo, Bosnia and Herzegovina KEYWORDS: rhabdomyolysis, myocardial infarction, treatment.

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*ADDRESS FOR CORRESPONDENCE: Faruk Čustović, Opća bolnica "Prim.dr.Abdulah Nakaš", Kranjčevićeva 12, 71000 Sarajevo, Bosnia and Herzegovina. / Phone: +38761722321 / E-mail: faffek@gmail.com

ORCID: Faruk Čustović, https://orcid.org/0000-0001-7254-8858 • Edin Begić, https://orcid.org/0000-0001-6842-262X Anela Šubo, https://orcid.org/0000-0003-3867-2542 • Bilal Oglečevac, https://orcid.org/0000-0003-3058-330X Denis Mačkić, https://orcid.org/0000-0001-6540-4944

Aim: To present a therapeutic modality of rhabdomyolysis after acute myocardial infarction (AMI).

Case report: A 45-year-old patient was admitted to Urgent Care Center due to chest pain. Due to repeated attacks of ventricular fibrillation (11 direct-current cardioversion defibrillation was done), and after successful cardiopulmonary resuscitation (CPR) he was intubated. Computed tomography (CT) of the head was without pathological findings. At admission laboratory findings were as follows: urea 17.5 mmol/L, creatinine 143 µmol/L, AST 584 IU/L, ALT 162 IU/L, creatine kinase 6220 IU/L, C-reactive protein 249.5 mg/L, troponin I 0.12 ug/L (in two days increased to 6.31 ug/L). In the resuscitation procedure, gastric contents were aspirated, and shadowing of the right lung was radiographically verified. Patient from admission was febrile up to 40° Celsius despite received therapy (positive finding on Haemophilus influenzae B was received subsequently). Ejection fraction of left ventricle was reduced (estimated about 30-35%) along with anteroseptal medioapical akinesia, while stroke volume was 46 mL. Hypokinesia of right ventricular free wall was verified. Tricuspid annular plane systolic excursion was 15mm, along with moderate tricuspid regurgitation. On the fourth day deep vein thrombosis of the left leq was verified. On the ninth day of hospitalization, a high increase in creatine kinase was verified (up to 127.100 IU/L) with consecutive renal failure (urea 38.1 mmol/L, creatinine 620 µmol/L) and rhabdomyolysis with acute renal failure was diagnosed. The patient was included in the acute hemodialysis program (six hemodialysis were performed, diuresis was up to a maximum of 250 mL/day). The patient's condition gradually stabilized, and the patient was taken of mechanical ventilation after 16 days. During next twenty days, kidney function was improving, and the patient was discharged home. Follow-up examination after two months verified anteroseptal and medioapical akinesia of left ventricle, with satisfactory renal function. Percutaneous coronary intervention was indicated.

Conclusion: Rhabdomyolysis may accompany AMI, especially after CPR, and a multidisciplinary approach to the patient is required, with optimized pharmacological treatment.¹

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