

Rhabdomyolysis Case Based on Hypothyroidism

Hipotiroidiye Bağlı Rabdomiyoliz Olgusu

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Muscle involvement in hypothyroidism is a rare complication. These patients are often present with decreased muscle mass, cramps and myalgia.¹ With these clinical symptoms increasing muscle enzyme (creatinine kinase (CK), aspartate aminotransferase (AST), lactate dehydrogenase (LDH)) suggests the rhabdomyolysis table. Rhabdomyolysis based on hypothyroidism is not a common condition. In these cases, acute kidney failure based on rhabdomyolysis may also be seen. In this report, a case which detected rhabdomyolysis based on deep hypothyroidism will be discussed.

Seventy-two years old male patient applied to our clinic with the complaints of increasingly widespread muscle pain, muscle weakness and leg cramps. The patient who had total thyroidectomy based on multinodular goiter did not proceed using levothyroxine after surgery. There was no known drug, alcohol or smoking history. The patient's vital signs during the application; body temperature 37.3 °C, pulse 55/min, blood pressure 130/95 mmHg, respiratory rate 13/min. On physical examination, cardiac and respiratory were normal, dry skin, decreased turgor tone, bilateral lower extremities trace edema and palpation tenderness in the legs were available. In examined laboratory findings; urea 50 mg/dl (17-43), creatinine: 1.8 mg/dl (0.5 to 1.2), calcium: 6.6 mg/dl, phosphorus: 5.2 mg/dl, uric acid: 6.9 mg/dl, AST 94 IU/L (10-50), LDH 796 U/L (240-480), CK total 4370 U/L (<190), troponin I 0.021 ng/ml (0 to 0.15), CK-MB: 8 U/L (7-25). Thyroid stimulating hormone >100 µ IU/ml (0.34 to 5.6), free thyroxine <0.15 ng/dL (0.61 to 1.12), free triiodothyronine 1.04 pg/ml (2.5 to 3.9), parathyroid hormone: 4.7 pg/mL and complete urinalysis normal. 0.6 mcg/kg of levothyroxine treatment was started considering that the patient has rhabdomyolysis based on deep hypothyroidism. Creatinine and CK returned completely back to normal range at the end of three weeks levothyroxine treatment (urea: 40 mg/dl, creatinine: 1.05 mg/dl, CK: 152 U/L).

Rhabdomyolysis myoglobin is characterized by muscle cells element escaping into the circulation which include electrolyte and sarcoplasmic proteins (CK, aldolases, LDH, and AST).² Rhabdomyolysis also known as injuries, crush syndrome, may also

present rare with hypothyroidism while it is a situation usually seen after major trauma.³ Rhabdomyolysis based on deep hypothyroidism, developed in this patient who did not proceed using levothyroxine after total thyroidectomy in this case report.

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