

Poster presentation

CPKM in acutely admitted psychiatric patients

K Kosmopoulou*, E Konstantinou and P Kanellos

Address: Psychiatric Department, Agia Olga General Hospital, Athens, Greece

* Corresponding author

from International Society on Brain and Behaviour: 1st International Congress on Brain and Behaviour
Hyatt Regency Hotel, Thessaloniki, Greece, 20–23 November, 2003

Published: 23 December 2003

Received: 1 November 2003

Annals of General Hospital Psychiatry 2003, **2**(Suppl 1):S107

This article is available from: <http://www.general-hospital-psychiatry.com/content/2/S1/S107>

Background

Creatine Kinase – muscular subtype (CPKM) is a sensitive and reliable index of degree of rhabdomyolysis, a potentially serious medical problem, sometimes leading to acute renal failure.

Material and Methods

Trying to determine rhabdomyolysis frequency, factors related, effective therapeutic measures and outcome, we screened all acutely admitted patients, the next after the admission day, as to their CPKM level and monitored those with abnormally elevated values. The patients studied consisted of a total of 527 subjects, 245 female and 282 male, aged 18 years to 88 years (mean 44 years), suffered 265 (50.3%) from psychotic disorders, 207 (39.4%) from affective disorders and 55 (10.3%) from other disorders.

Results

CPKM >250 IU/L was found in 148 of the patients (28%), CPKM >1.000 IU/L, that is four times the upper physiological value, in 62 (11.7%) and CPKM >10.000 IU/L in 3 (0.6%).

Agitation, male gender, previous intramuscular injections, abnormally low potassium, abnormal high urea and creatinine were significantly related to rhabdomyolysis ($p < 0.05$), in patients with CPKM >1.000 IU/L.

Patients with CPKM >250 <1.000 IU/L just monitored.

For those with CPKM >1000 IU/L therapeutic measures included neuroleptics dose reduction in 78.3%, switch parenteral to oral medication in 65.2%, restoring fluid and electrolyte imbalance in all patients.

Return to normal CPKM values was within 5 to 20 days.

In one case rhabdomyolysis was massive with CPKM >100.000 IU/L, a severe acute renal failure developed in 24 hours, and patient died in a nephrologic unit three days later.

Discussion

Abnormally increased CPKM, rhabdomyolysis' index, seems common in acutely admitted psychiatric patients. Given the associated risk of acute renal failure, rhabdomyolysis must be monitored and treated.