

CASE REPORT

Rhabdomyolysis induced by a single dose of a statin

S Jamil, P Iqbal

Heart 2004;90:e3 (<http://www.heartjnl.com/cgi/content/full/90/1/e3>)

Statins have been shown to cause myotoxicity and rhabdomyolysis. In most cases rhabdomyolysis occurs following the use of these drugs for at least one week. A case of rhabdomyolysis after just a single dose of simvastatin is reported.

Hydroxymethyl glutaryl coenzyme A reductase inhibitors (statins) have been shown to cause myotoxicity and rhabdomyolysis, with a reported incidence of 0.1% and one per million, respectively.¹ In most cases rhabdomyolysis results from the use of these drugs for at least one week. Here we report a case of rhabdomyolysis after just one dose of simvastatin.

CASE REPORT

A 54 year old man was admitted with a one week history of exertional dyspnoea, orthopnoea, and paroxysmal nocturnal dyspnoea. Apart from hypertension and migraines, for which he was taking propranolol, there was no medical history.

On examination he was found to be hypertensive with a blood pressure of 227/139 mm Hg and evidence of left ventricular failure. Fundoscopy did not show any hypertensive retinopathy and ECG did not fulfil the voltage criteria for left ventricular hypertrophy. Urine dipstick analysis showed 1+ protein. Chest radiography showed cardiomegaly with pulmonary oedema. He was found to have mild renal impairment with a serum creatinine concentration of 141 µmol/l, but all other tests including creatinine kinase, troponin T, full blood count, C reactive protein, erythrocyte sedimentation rate, liver function tests, and glucose were normal. Total serum cholesterol concentration was high at 5.6 mmol/l. Echocardiography showed mild aortic stenosis

(gradient 17 mm Hg) with left ventricular hypertrophy but a good systolic function.

He was treated with furosemide, ramipril, aspirin, and simvastatin (40 mg/day). After one dose of simvastatin he was found to have a raised creatinine kinase concentration of 11 290 µ/l with a raised urine myoglobin concentration of 46 560 µg/ml (normal 0–50 µg/ml). He was asymptomatic from this and, in fact, feeling better. There were no associated ECG changes and a repeat troponin T test was normal. After this, although his renal function deteriorated only slightly, all his parameters improved when simvastatin treatment was stopped.

DISCUSSION

There are several documented cases of rhabdomyolysis secondary to the use of a statins, but none after just a single dose. The rhabdomyolysis in this case was most likely caused by an idiosyncratic reaction to simvastatin. Clinicians should be aware of this possible complication presenting in the early days of the use of statins.

Authors' affiliations

S Jamil, P Iqbal, Medical Directorate, Chesterfield and North Derbyshire Royal Hospital NHS Calow, Chesterfield, UK

Correspondence to: Dr P Iqbal, Medical Directorate, Chesterfield and North Derbyshire Royal Hospital NHS Calow, Chesterfield S44 5BL, UK; drpi2pc@aol.com

Accepted 2 October 2003

REFERENCE

- 1 Lane R, Phillips M. Rhabdomyolysis. *BMJ* 2003;327:115–6.