KSN 2019
Seoul, Korea · May 23 - 26

Abstract Type : Poster
Abstract Submission No. : PO-1101

Rhabdomyolysis secondary to the concomitant use of simvastatin and amiodarone in Korea: case report

Hyun Jin Kim, Dong-Young Lee, Hye won Kim, Beom Kim, Kyoung Hyoub Moon
Department of Internal Medicine-Nephrology, Seoul Veterans Hospital, Korea, Republic of

Case Study: Myopathy is the most typical complication of statin, however infrequent in practice. Myopathy including rhabdomyolysis is liable to certain predisposing factors. Those are older age, diseases such as diabetes mellitus, impaired renal and hepatic function, also concomitant use of medication affecting statin metabolism including azole, cyclosporine, fibrates, and amiodarone. Amiodarone, a class III antiarrhythmic drug, inhibits the cytochrome P-450 (CYP) 3A4 isoenzyme, and simvastatin is primarily metabolized by CYP3A4. There have been few reports of severe rhabdomyolysis occurred secondary to the concomitant use of simvastatin and amiodarone, however none of case has been reported in Korea.

We report a case of a 75-year-old patient who had taken well simvastatin over two years and the addition of amiodarone two month ago due to atrial flutter and tachycardia induced heart failure, resulting in severe rhabdomyolysis. He was admitted to hospital for right leg weakness and general weakness. Laboratory findings are a significant increase of creatine kinase (CK) peaking at 65184 U/L. We started massive hydration by normal saline and 5DW mixed with sodium bicarbonate and hold the simvastatin at the same time. The degree of a decrease in CK/CK-MB/Myoglobin was slight despite the patient's urine output was maintained well. After we stopped amiodarone at hospital of day 6, CK/CK-MB/Myoglobin had decreased significantly since then.

Despite a FDA safety alert concerning the increased risk for severe muscle toxicity and rhabdomyolysis in patients receiving simvastatin concomitantly with amiodarone released in 2008, many physicians appear to overlook this established fact. Physicians should prescribe simvastatin with extra caution to patients using amiodarone concomitantly, moreover, with certain comorbidity and medications. The dose of simvastatin should not exceed 20mg/day or choosing different statin such as pravastatin, rosuvastatin or fluvastatin, which are not primarily metabolized via the CYP3A4 pathway, is preferred when concomitant treatment with amiodarone is required.