Hyperkalaemia: case report

A 46-year-old woman developed hyperkalaemia during treatment with daptomycin.

The woman was hospitalised in July, 2013 for a complaint of swollen and painful right shoulder for several weeks after vancomycin therapy. Her medical history included AIDS, anaemia, seizures, buerger’s disease, leucopenia, anxiety, depression, osteochondroma. She had hysterectomy in the past. During hospitalisation the woman continued various home medications including docusate. She was treated with vancomycin for shoulder abscess, however due to therapy failure, on the 3rd day of hospitalisation she was switched to daptomycin 9 mg/kg I.V (500 mg daily). At the time of daptomycin therapy her serum creatinine and potassium concentrations were 1.0 mg/L and 4.6 meq/L, respectively. On 10th and 11th day of daptomycin therapy, her potassium level was found elevated.

The woman’s hyperkalaemia was treated with regular insulin, dextrose and sodium polystyrene sulfonate and her potassium level decreased. Daptomycin was stopped for a day and her potassium concentration normalised.

On 16th day of hospitalisation, daptomycin was re-administered at a dose of 7 mg/kg (400 mg daily) and on 17th day of hospitalisation her potassium level again increased. For the 17th to 20th day of hospitalisation, daptomycin dose was decreased to 4.5 mg/kg (250 mg daily). Her potassium level was controlled with sodium polystyrene sulfonate. After 20 day of hospitalisation, she was discharged and daptomycin therapy was continued for 6 weeks along with sodium polystyrene sulfonate therapy. During her 1st week of daptomycin therapy potassium level decreased and stayed within the range till, sodium polystyrene sulfonate was stopped, 4 weeks later. Daptomycin 250mg was continued for full course of therapy.

Author comment: “Evaluation of this case using the algorithm of Naranjo et al. yielded a score of 6, indicating that the serum potassium elevations probably constituted an adverse reaction to daptomycin.”

Budovich A, et al. Daptomycin-induced hyperkalemia in a patient with normal renal function. American Journal of Health-System Pharmacy 71: 2137-2141, No. 24, 15 Dec 2014. Available from: URL: http://doi.org/10.2146/ajhp140081 - USA 803112337