Daptomycin

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Rhabdomyolysis in an elderly patient: case report

A 68-year-old woman with polycystic kidney disease and polymyalgia rheumatica developed rhabdomyolysis during treatment with daptomycin.

The woman was admitted with fever and shaking chills and started receiving IV fluids for acute renal insufficiency. The morning after admission, microbiological investigations revealed Enterococcus spp and she started receiving IV daptomycin 350mg every 24 hours; concomitant medications included tacrolimus, prednisone and azathioprine. On day 3, blood cultures showed Pseudomonas spp. and she received imipenem/cilastatin. On the morning of hospital day 4, she developed sudden-onset profound muscle weakness and was unable to lift her arms from the bed. She reported upper extremity pain of 10 out of 10. At this time, her cultures were positive for *P. aeruginosa* and *E. casseliflavus*.

Drug-induced musculoskeletal toxicity was suspected and, after three doses, daptomycin was discontinued. She had a creatine kinase level of 25 234 U/L, an ALT level of 332 U/L and an AST of 1155 U/L. She developed dyspnoea and was transferred to an ICU. She received IV fluids and linezolid and her condition improved. She was transferred to a long-term care facility for IV antibacterials and rehabilitation. On hospital day 10, she was discharged with a creatine kinase level of 290 U/L and nearly baseline liver enzyme levels.

Author comment: "*The Naranjo algorithm correlated to a probable classification for daptomycin as the cause for rhabdomyolysis. The mechanism behind adverse skeletal muscle effects of daptomycin may involve leakage of intracellular [creatine kinase] from affected myofibres . . . It is possible that [polymyalgia rheumatica] may have predisposed the patient to muscle toxicity*."

Patel SJ, et al. Early-onset rhabdomyolysis related to daptomycin use. International Journal of Antimicrobial Agents 30: 472-474, No. 5, Nov 2007 - USA 801096087