Antibiotics

Encephalopathy, deteriorated kidney function and piperacillin/tazobactam overdose: case report

A 78-year-old woman developed encephalopathy during treatment with amikacin, piperacillin/tazobactam and linezolid. Additionally, she experienced deterioration of kidney function secondary to amikacin and piperacillin/tazobactam, and exhibited overdose of piperacillin/tazobactam (not all dosages and outcomes stated, routes not stated).

The woman hospitalised due to infectious lung disease and was initiated treatment with 16 g/day piperacillin/tazobactam (tazocillin), linezolid for 24 h and 2 g of amikacin injection. However, she experienced a sudden deterioration of her state of consciousness after 3 days, and for that, she required intubation and ventilation. Subsequently, she underwent other investigations, which did not reveal any hypoglycaemia or ischemic or haemorrhagic lesions in the brain. However, a calm coma pattern with diffuse brain pain persisted with a toxic origin was noticed through EEG. Her finding were consistent with encephalopathy. Additionally, her kidney function deteriorated, and a major piperacillin/tazobactam overdose was confirmed.

The woman’s piperacillin/tazobactam dose was decreased to 12 g/day. Consequently, her serum levels decreased, and after 3 days her piperacillin/tazobactam discontinued. Thereby, she underwent an extra-renal cleansing. There was no further recurrence of consciousness disorders noticed after the discontinuation of piperacillin/tazobactam.

Mathieu O, et al. Encephalopathy during hospitalization for infectious lung disease: thinking about piperacillin overdose Toxicologie Analytique et Clinique : S44 abstr. p11, Dec 2020. Available from: URL: http://doi.org/10.1016/j.toxac.2020.09.012 [abstract; French; summarised from a translation]