Allergic Cross-Reactivity to Teicoplanin and Vancomycin

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Dear Sir,

Teicoplanin is a relatively new glycopeptide antibiotic, similar to vancomycin. It interferes with bacterial cell wall synthesis and is effective in the treatment of methicillin-resistant strains of staphylococci [1, 2]. Although there is some similarity between the two antibiotics, several groups have reported successful treatment with teicoplanin in patients who had allergic reactions to vancomycin [3-5]. However, there has been one previous report of possible allergic cross-reactivity between the two antibiotics [6], and we wish to report the following case.

A 67-year-old Egyptian lady treated with continuous ambulatory peritoneal dialysis (CAPD) for chronic renal failure secondary to focal segmental sclerosis developed peritonitis. The peritoneal fluid contained an increased number of neutrophils and both *Staphylococcus epidermidis* and diphtheroids were cultured. She was treated with intraperitoneal vancomycin at a dose of 25 mg/l for 5 days. On discontinuation of treatment, the CAPD bags became cloudy and *S. epidermidis* was regrown. A further 5-day course of intraperitoneal vancomycin was given. Although the episode of peritonitis settled, she represented 5 days later with a generalised erythrodermic urticarial rash. She was treated with oral prednisolone and antihistamines, the urticaria settled, and the skin desquamated. Unfortunately, several days later she developed a further episode of peritonitis once again due to *S. epidermidis*, which was only sensitive to vancomycin, teicoplanin and fucidin.

She was given teicoplanin 200 mg intravenously and then 20 mg/l intraperitoneally. 48 h later she developed sudden onset of shivering associated with swelling of the fingers and lips, and an urticarial rash which started on her trunk and legs and then became a generalised erythrodermic rash. The drug was withdrawn, and she was again treated with steroids and antihistamines. The erythrodermic rash slowly settled over the following week and her skin desquamated. The peritonitis finally settled with an intraperitoneal course of fucidin.

This case supports the previous report of possible allergic cross-reactivity between the two glycopeptide antibiotics. Teicoplanin has a half-life of some 70-100 h in the normal patient, and is prolonged in patients with chronic renal failure. In our case, plasma teicoplanin concentrations taken 24 and 36 h after discontinuing the drug were 1 mg/l or less, so excluding any possible toxic effect due to teicoplanin accumulation. We suggest that teicoplanin is cautiously used in patients with previously documented allergic reactions to vancomycin.

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