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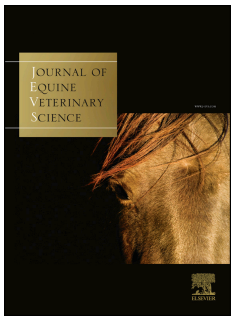

Antimicrobial resistant *E. faecium*, *E. faecalis*, and other *Enterococcus* species isolated from foal feces in Japan

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Short Communication

Antimicrobial resistant *E. faecium*, *E. faecalis*, and other *Enterococcus* species isolated from foal feces in Japan

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Abstract

Antimicrobial resistant (AMR) enterococci are an emerging problem for human and animal health. Few studies have focused on the detection of antimicrobial resistant in foals; therefore, we conducted this study to investigate the occurrence of AMR enterococci in foal feces in Japan. A total of 72 fecal samples from healthy foals were collected from seven horse stables, in Hokkaido Prefecture, from June 2015 to January 2016. Enterococci were isolated and identified using EF Agar Base selective media, and the species confirmed using MALDI Biotyper systems. The minimum inhibitory concentration of nine antimicrobial agents for the isolates was determined based on Clinical Laboratory Standard Institute (CLSI) guidelines. A total of 183 isolates of enterococci were identified as *Enterococcus faecium* 54.1% (99/183), *Enterococcus faecalis* 16.4% (30/183), and other species 29.5% (54/183). The highest occurrence of *E. faecium* antibiotic resistant was to erythromycin at 55.6% (55/99), followed by enrofloxacin, kanamycin, and oxytetracycline, at 30.3%, 7.1%, and 4.0%, respectively. In contrast, *E. faecalis* isolates showed higher resistant to oxytetracycline 76.7%, kanamycin 46.7%, gentamycin 30.0%, chloramphenicol 16.7%, lincomycin 30.0%, and tylosin 30.0%. *Enterococcus faecium* highly resistant to erythromycin and enrofloxacin, but lowly resistant to gentamycin and tylosin and *E. faecalis* were highly resistant to kanamycin, oxytetracycline, and lincomycin. AMR *E. faecalis* (30.0%) and *E. faecium* (4.0%) isolates show