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Abstract (poster session)

Cadazolid and fidaxomicin are active against strains isolated from primary and recurrent *Clostridium difficile* infections

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Objectives: *Clostridium difficile* is the major cause of nosocomial diarrhoeal diseases in elderly patients after treatment with antimicrobial agents. About 20% of the patients develop a recurrent infection after the primary episode. The aim of this study was to investigate the antimicrobial sensitivity of isolates from primary and from recurrent *C. difficile* infection (CDI) as well as the microbial factors that may contribute to the recurrences of CDI. **Methods:** Fifty-five patients with a primary CDI were enrolled in this study. Faecal samples were, when possible, collected at 1, 2, 4, 6 and 12 months after the primary infection and analysed for the presence of *C. difficile* and toxin B. All isolates were investigated by antimicrobial susceptibility tests and ribotyping. **Results:** The mean age of the 55 patients was 74 years and 29 were females and 26 males. Ten of the patients died during the follow-up period due to underlying diseases not directly attributed to CDI. Twenty-seven patients were positive for *C. difficile* during the follow-up period. Nineteen were colonised with the same ribotype as the primary CDI and 8 switched ribotype. The most common ribotype was 020 followed by 078. In 8 of the patients a new *C. difficile* ribotype was isolated after a period of negative samples. In 1 patient, 4 different ribotypes were isolated during the 1-year period. Another patient changed the ribotype twice during the follow-up period. No PCR-ribotype 027 was found in any of the samples. Sixty-seven isolates were analysed for antimicrobial susceptibility. All isolates were sensitive to cadazolid (MIC range) (0.125-0.25 mg/l), fidaxomicin (0.016-0.125 mg/l), metronidazole (0.125-1 mg/l), vancomycin (0.125-1 mg/l), tigecycline (0.008-0.125 mg/l), fusidic acid (0.064-0.5 mg/l) and linezolid (0.5-8 mg/l). Five isolates were resistant to moxifloxacin (0.064-32 mg/l) and tetracycline (0.064-32 mg/l) and 3 to rifampicin (0.002-64 mg/l). 41 of the *C. difficile* isolates were resistant to clindamycin (0.25- \geq 128 mg/l). **Conclusion:** Among the 55 patients enrolled in this study, 27 were positive for *C. difficile* after the initial episode. During the study period, 8/55 (14%) changed the PCR-ribotype. The 078 PCR-ribotype was isolated from 5 patients. No PCR-ribotype 027 was detected in any samples. All tested strains were sensitive to cadazolid, fidaxomicin, metronidazole, vancomycin, tigecycline, fusidic acid and linezolid. 41 strains (61%) were resistant to clindamycin.