

POSTER PRESENTATION

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Antimicrobial use prior as a risk factor for developing extended-spectrum beta-lactamase-producing *Klebsiella* spp. in South Brazil

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Introduction / objectives

Extended-spectrum beta-lactamase-producing (ESBL) *Klebsiella* spp. is a problematic nosocomial pathogen around the world. In the present study, we aimed to evaluate the previous use of antibiotics as a risk factor for isolation of ESBL *Klebsiella* spp.

Methods

In a retrospective case control study between June 2009 and June 2010 at Santa Casa de Misericórdia Hospital, city of Ponta Grossa, south Brazil, 61 *Klebsiella* spp. (29 ESBL and 32 controls non-ESBL-producing isolates) were enrolled. ESBL were screened by disk diffusion method and double disk approximation method, according to CLSI. Prior use of antibiotic was analyzed in electronic medical records. The antibiotic consumption (DDD_s – defined daily doses) was tested using the X^2 test ($p < 0.05$).

Results

The DDD_s of prior use and full use of cephalosporines, fluoroquinolones, e metronidazole in ESBL and non-ESBL groups were (122.02/145.77; 8.78/69.07), (15.66/22; 0.01/26.2), (47.33/47.66; 3/28) respectively. Prior use of cephalosporines, fluoroquinolones, and metronidazole was higher in ESBL-*Klebsiella* spp. than non-ESBL-*Klebsiella* spp. ($p < 0.001$). Carbapenems were not used by the control group.

Conclusion

The prior use of broad-spectrum cephalosporins, fluoroquinolones and metronidazole is an important risk factor for acquisition of ESBL producing *Klebsiella* spp.

Disclosure of interest

None declared.

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