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## Retrospective investigation of Serratia species infection in tertiary care children's hospital

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Cerratia species are belonged to the family of Enterobacteriaceae which is thought to be an important pathogen in nosocomial Unfections over the last 30 years. The aim of our study is to contribute to the determination of the ideal management by examining the clinical data and resistance patterns of children with Serratia infection in our hospital. Between January 2000 and September 2016, a total of 89 patients with Serratia spp., were identified, 33.7% of patients were female and 66.3% were male. Median age was 3 years (minimum-maximum, 0-17). We could only reach clinical data of 66 patients and 37 (56%) of them were considered to be infection agent, while 29 (44%) were diagnosed as colonization with no clinical findings. Serratia marcescens (n=32, 86.5%) was the most common Serratia species whereas non-marcescens species (Serratia liquefaciens, Serratia roridae, Serratia odorifera, Serratia plymuthica) were detected more rarely (n=4, 13.5%). Community-acquired serratia infection was 27% and hospital-acquired Serratia infection was 73% of all. Serratia bacteremia (56.8%) was the most common type of infection among the patients. The other infection types were urinary tract infection (13.5%), wound infection (13.5%), pneumonia (5.4%), meningitis (5.4%) and peritonitis (5.4%). Antibiogram results showed that the rate of bacteria resistant to carbapenems is 10.8%, to amikacin is 10.8%, to third generation of cephalosporins is 13.5% and to ciprofloxacin is 2.7%. Combination therapy with meropenem and amikacin (40.5%) was the most frequent used treatment option. Infection-related mortality was not seen in any of the patients. Serratia species infections are seen as bacteremia commonly and they generally cause nosocomial infections. Current clinical study reveals that combined antibiotic therapy compatible with antibiogram improves clinical success and reduces mortality.

## **Biography**

Yasemin Ozsurekci has graduated as a pediatrician in 2009 and graduated as a pediatric infectious diseases specialist in 2013 from Hacettepe University Faculty of Medicine. In addition, she is a continuing student in Ph.D programme at the Bilkent University, Molecular Biology and Genetics for improving of her experiences in research and teaching and focusing the molecular epidemiology in the field of infectious diseases. She has her expertise in evaluation of hospital-acquired infections, particularly which caused by multi-drug resistant gram-negative bacteria and passion in investigating the zoonotic diseases as well as underlying mechanisms

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