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Urinary tract infection associated with multidrug-resistant bacteria in a second level hospital during a two-year period

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Objective: To determine the frequency of urinary tract infections associated with MDR bacteria, characteristics patients with such infections and the mortality rate associated in Hospital ISSSTECALI during 2015-2016.

Design: Descriptive, observational, analytic, transversal study.

Methods: We collected data from clinical files of each patient that had been diagnosed with a urinary tract infection and had an uroculture of $10x10^5$ CFU of bacteria with a multidrug-resistant profile. It included, gender, age, comorbidities, predisposing risk factors, obtained isolation, sensibility pattern, days of stay and proper technique of culture. We calculated frequencies and rates.

Results: During January 2015- November 2016 a total of 2401 urocultures were solicited, we isolated bacteria in 123 of them (5.12%). 94 urocultures were included, 71% of the cultures were from women with a median age of 68 years; comorbidities: Hypertension (50%), diabetes (41.5%), chronic renal disease (14.9%), history of stroke and bed-rest. An average of 14.15 days of stay was calculated. They all had a urinary catheter. Of the total of urocultures obtained, 54 urocultures demonstrated bacteria growth with a MDR phenotype (attack rate: 0.43 cases/1000 discharges) *Escherichia coli* was isolated in 26 (48.14%) cultures; *Pseudomonas aeruginosa* 7.4% and *Klebsiella pneumonia* 5.5%; its mechanism of resistance was calculated according to the reported phenotype on the anti-microbiogram, demonstrating resistance to more than two family of antibiotics. A mortality rate of 21.3% was calculated of which the direct cause was related to the infective process (rate: 0.23 deaths/1000 discharges).

Conclusion: The isolation of bacteria with a multidrug-resistant profile is not very common; however, they generate a high morbimortality index and a great weight in resources to our unit.

Recommendations: Reinforcement of programs that encourage rational use of antibiotics as well as the control of nosocomial infections should be employed in the hospital.

Biography

Becerra-Cardenas Eduardo Daniel is a Pediatric Infectiologist working at Hospital Issstecali, Mexico. He has completed his Pediatrics Residency program from Hospital Issstecali, Mexico.

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