The efficacy of 2 days versus 3 days treatment with Ciprofloxacin, in our cases of multi-drug resistant shigellosis

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Background: The annual number of Shigella episodes worldwide was estimated to be 164.7 million, of which 163.2 were in developing countries. Multiple drug resistant strains of Shigella are emerging throughout the world. Shigellosis still represents in average 0.9-1.05% of admissions to the Service of Infectious Diseases at Mother Theresa University Hospital Center in Tirana, Albania. Strains of Shigella isolates were 28.2% resistant to Ampicillin, 25% to Trimethoprim-Sulfamethoxazole, 23.9% to Chloramphenicol, 22.8% to Tetracycline and 13% to Nalidixic acid. All isolates were susceptible to Ciprofloxacin. To our knowledge, this is the first report of multiple drug resistant shigellosis from Albania.

Methods: In a prospective study to evaluate 2 days versus 3 days treatment of shigellosis with Ciprofloxacin, 92 patients comprised 53 females and 39 males, ranging in age from 17 to 55 years old were enrolled in this study (2006-2010). 24 randomly selected patients received Ciprofloxacin, 500 mg twice daily for 2 days and 24 patients (then 44 others) received 500 mg twice daily for 3 days. In addition to routine laboratory examinations, daily stool cultures were obtained. Rectosigmoidoscopy was performed in each patient before and on the third day of treatment.

Results: Sh. flexneri (1b, 2a, 2b) was isolated in 83.7% of stool cultures, Sh. sonnei in 6.5%, Sh. dysenteriae in 5.5% and Sh. boydii in 4.3%. Rectosigmoidoscopy revealed hyperemia, multiple bleeding sites and some purulent secretion. Gastroenteritis was controlled in 88% in 24 hours and in all patients in 48 hours. Apyrexia was observed in 61.9% within 24 hours and in 98.9% within 48 hours of treatment. Stool cultures for Shigella were positive in 36.9% within 24 hours and in all patients in 48 hours. Apyrexia was observed in 2 days of treatment of multi-drug resistant Shigella in Albania. Although Shigellosis is a self-limited disease, for public health reasons antibiotic therapy is useful in (1) shortening fecal excretion of the Shigella and (2) the clinical course of the disease.

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