Antibiotic Sensitivity of Isolated Shigella spp. from Tehran

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Objectives: Shigella species are the cause of acute infectious diarrhea. Approximately 40 million cases of shigellosis with 600,000 deaths are reported annually throughout the world. As many Shigella species show multiple antibiotic resistance markers on plasmid, if antibiotic therapy is undertaken, it is advised that isolated species should be subjected to In-vitro antibiotic susceptibility test. Methods: In this study fecal specimens of suspected diarrhea cases of five hospitals of Tehran cultured by plating on various selective or differential media, from Jun 2015 to September 2016. Isolated samples then subjected to specific biochemical tests. Species that non motile, didn't ferment lactose and produce no gas from carbohydrate and fail to produce hydrogen sulfide confirmed by serological testing. Results: Results analyzed by chi-square and t-test. Out of 140 suspected dysenteric cases (male and female) 70Shigella spp. were isolated with included S.flexneri 35.7% (n=25), S.dysenteriae 31.4% (n=22), S.sonnei 22.9% (n=16), S.boydii 11% (n=7). Conclusion: Results showed that S.flexneri and S.dysenteriae were dominated serotypes (67.1%). There was no significant difference between male (51.3. %) and female (48.7%) (P<0.3). The most cases were found in summer (49.8%) and the least in spring (9%). Most of the isolated strains were sensitive to ceftriaxone and ceftizoxime (91.2%), ciprofloxacine (92%) and Nalidixic acid (85%). They showed resistance to ampicilline, amoxicilline, furazolidone, SXT, tetracycline and neomycine.

Keywords: Shigella spp, Antibiotic Sensitivity, Tehran