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**Title:** A Study on etiologic agents and drug resistance pattern of entropathogens isolates from stool specimens of children less than five years old admitted in an Iranian hospital

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**Abstract:**
Background and Objective: Acute gastroenteritis is an important health public issue especially in developing countries. The aim of this study was to determine the entropathogens causing acute diarrheal disease in children under five years old admitted to Milad Hospital of Tehran.

Materials and Methods: This retrospective study was performed between December 2009 and January 2011. Stool samples were collected from patients with diarrhea who attended to Milad Hospital of Tehran. The patients who had soft defecation at least thrice a day were included in our study. During our study in total 8195 stool specimen were processed. Of 8195 patients 2207 (26.93) were children under five years old. Specimens cultivated in blood agar, MacConkey Agar, Hekton Entric agar and XLD agar. Standard cultivation and biochemical tests were performed to determine of Salmonella spp, Shigella spp. and Entropathogenic E.coli as a common entropathogens. Specific anti-sera were used for serotyping all isolated pathogens.

Results: Of the 2207 stool samples, 153 (6.93%) were culture positive for one of the entropathogens bacteria. Of 153 patients 94 (61.43) were male and 59(38.56%) female. The majority of patients aged one year old. Enteropathogenic E.coli (EPEC), Shigella spp and Salmonella spp accounted for 82/153 (53.59%), 26/153 (16.99%) and 45 (29.41%) of all isolates respectively. Shigella sonnei with 22 isolates being the most prevalent serotype. Nalidixic acid was the most effective antibiotic against Shigella spp and only 19.23% isolates of Shigella spp were resistant to nalidixic acid. The majority of isolates of Shigella spp were resistant to ampicillin and Co-trimoxazole. Chloramphenicol with the rate of 18.29% resistance was the most effective antibiotic against EPEC spp. Resistance rate of EPEC to other tested antibiotics including ampicillin, nalidixic acid Co-trimoxazole, ceftriaxone and cefexim was 74.39%, 56.09%, 63.41% 40.24% and 71.95% respectively. Resistance rate of Salmonella spp to ampicillin, nalidixic acid and Co-trimoxazole was 4.44% 35.55% and 22.22% respectively.

Conclusion: During of our two years study in total 153 pathogen were isolated from stool cultures. Shigella sonnei was the most prevalent serotype among shigella spp. Resistance to commonly used antibiotic was prevalent among all isolates.

**Enteropathogens , Drug Resistance**

**Presentation:** Poster