

Assessment of Children under than Five Ages toward the Diarrheal Cases with Antibacterial Effect of bacteria isolates in Babylon Province, Iraq

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Abstract: Background: Diarrheal disease is an infection caused by the presence and growth of microorganism in the intestine. **Objectives:** This study aims at determining the common organism that causes diarrhea in children less than 5 years and detection the most effective antimicrobial agents and plant extract that causative agents of diarrhea and select the best antibiotics to treat it. **Methods:** One hundred stool sample was collected from children have watery diarrhea in Al-Qassim hospital; during the period (January to April 2015). The microbial isolate was identified tested for antibacterial agents. **The results:** Sixty case From 100 samples have a bacterial infection (60%) represented by *E. coli* (75%) and *Salmonella* spp. (25%).

Regarding Antibiotic sensitivity test, *E. coli* and *Salmonella* spp. showed highly sensitive to Imipenem (88.8%), (100%) respectively, followed by Amikacin (100%) for *E. coli* and Ciprofloxacin (100%) for *Salmonella* spp., while Rifampin were not effective against tested isolates, whereas the plants extract result revealed that lemon extract more effect on diarrheal bacteria than other one.

Conclusions: in this study I conclude that rate of bacterial diarrheal infection among children younger more than 5 years was high. *E. coli* was predominant isolate and imipenem was the most effective antibiotics on bacterial isolates. Among plants extract lemon were more effect on diarrheal bacteria

Keywords : Antibacterial effect, Diarrheal Children antibiotics and plant extracts.