Abstract

A study of urinary tract infection in children had been planed to identify the bacterial causes. Also, the color, cloudiness, acidity of urine were registered for each sample. A urine culture was performed to detect the presence of bacteria as well as its antibiotic sensitivity test.

Pyuria was diagnosed in 100 patients (30) males and (70) females. The number of positive urine cultures for \( \text{E. coli} \) were 37 (66%), \( \text{Staphylococcus saprophyticus} \) 4 (7.1%), \( \text{Proteus} \) 10 (18%), \( \text{Klebsiella} \) 3 (5.4%), \( \text{Pseudomonas} \) 1 (1.8%), and \( \text{Enterobacter} \) 1 (1.8%).

The antibiotics susceptibility of \( \text{Escherichia coli} \) isolates was characterized by high resistance to amoxicillin 83.8%, cotrimaxazole 41%, while it was susceptible to nitrofurantoin, nalidixic acid, cefotaxime, gentamicin. The high resistance among \( \text{Klebsiella pneumoniae} \) 66.7% also toward amoxicillin and 100% for cefotaxime, but it was susceptible to nitrofurantoin and cotrimaxazole.

The high resistance of \( \text{proteus} \) sp. 100% to amoxicillin was noticed while it was sensitive for nalidixic acid 20% and cefotaxime 40%. \( \text{Staphylococcus saprophyticus} \) isolates were sensitive to cefotaxime 25%, nalidixic acid 25% and nitrofurantoin.

\( \text{Pseudomonas} \) and \( \text{Enterobacter} \) were sensitive to cefotaxime and nitrofurantoin.

*Introduction

The urinary tract infections (UTI) are bacterial infections of urinary tract in most of cases (kidney, ureter, bladder, and urethra). The UTI is defined by the presence of pure bacterial growth > 100,000 colony forming unit (CFU) /ml (1). The pyuria mean presence of more than 5 pus cells in high power field of microscope in centrifuged urine (2), so white blood cells (leukocytes) should be counted. The pyuria is sufficient for diagnosis of UTI in non hospitalized patient if standard symptoms or just fever in small children is also present (3).

Recurrent UTI is relapse with the original infecting organism or reinfection with a different organism. In general, A reinfection is a UTI that occurs more than 2 weeks after antibiotic treatment of the original UTI is completed; it may be caused by the same bacteria as the original infection or a different one (4). Reinfection account for 80% of recurrent infections. A relapse is a UTI caused by the same bacteria as the original UTI that occurs within 2 weeks after the individual has completed antibiotic treatment (5).

There are three basic forms of UTI: (6). -Clinical pyelonephritis: is characterized by abdominal or flank pain, fever, malaise, nausea, vomiting, jaundice in neonates, and occasionally diarrhea.

- Cystitis: indicates that there is a bladder involvement and includes dysuria, urgency, frequency, suprapubic pain, and malodorous urine.

- Asymptomatic bacteriuria: refer to a positive urine culture in children's without any