

Abstract

In patients with suspected UTI, antibiotic treatment is usually started empirically, before urine culture results are available. Inappropriate and frequent use of antibiotics may change the intestinal flora and induce bacterial resistance. Therefore, knowledge of the pathogen types responsible for UTIs and their resistance patterns to antibiotics is very important in helping clinicians to choose the right empirical treatment.

The current study was designed to evaluate the profile of bacteria isolated from pus specimens and urine cultures in our area along with their resistances pattern to different antimicrobial agents.

Positive urine and pus cultures Data from 2008 to 2014 archived folders, in the Chemical and Clinical Pathology Laboratories of Beni-Suef University Hospital was obtained. The data included the antibiogram of the selected recovered microorganisms to different antibiotics. The data was entered in Microsoft access data base.

A total of 1506 urine culture (785 females) patients' results with positive urine culture were included in the study. *Escherichia coli* (*E. coli*) was the most common isolate (33.53%) followed by *Klebsiella spp.* (15.53%). *E.coli* was resistance to sulphamethoxazol-trimethoprim (72.7%), Ceftazidime (66.8%), and Ampicillin/sulbactam (62.9%), but showed low resistance towards Impenem, Meropenem, and Amikacin but *Klebsiella spp* was resistance to almost antibiotics except Amikacin.

Of the 407 pus culture, *Pseudomonas spp.* was the most common organism isolated (20.9%), followed by MSSA (14.3%), *E. coli* (10.8%), MRSA (9.1%), and *Klebsiella spp.* (8.8%). MSSA was found to be highly resistant to penicillin, ampicillin, and erythromycin, while being sensitive to vancomycin. On the other hand, all the Gram-negative bacilli isolated were found to be highly resistant to cephalosporins and fairly showed low resistance towards imipenem, and amikacin.

In conclusion the current study showed that high resistance rate towards different antibiotics in Beni-Suef and antibiotic stewardship should be established

Key words: Urinary Tract infection, Pus, bacterial resistance