Bacteriology and antibiotic sensitivity patterns of urinary tract infections in a tertiary hospital in Bangladesh

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Urinary tract infection (UTI) is common bacterial infection in mankind. The changing antimicrobial sensitivity in UTI demands use of appropriate antibiotics. A prospective study was performed in Comilla Medical Collage during the period of January 2011 to December 2011 with 551 adult patients presented with symptoms suggestive of UTI. The study was designed to isolate and identify the nature of bacteria in UTI with their sensitivity pattern to common antibiotics. Of the 551 tested samples, 131 samples showed growth of pathogens among which the most prevalent were E. coli 98 (75%) followed by Klebsiella pneumonia 14 (10.7%) and Enterococcus 8 (6%). The majority 96 (73.3%) of the isolates were from female while the remaining were from male and this sex difference was statistically significant (p<0.001). Imipenem, meropenem, amikacin, nitrofurantoin, gentamycin, mecillinum and amoxyclav are found to be effective against 76-100% of the uropathogens. Most powerful antibiotics in our study were imipenem, meropenem, amikacin and nitrofurantoin which show their efficacy against 91-100% isolates. In more than 60% case shows their resistance against amoxycillin, nalidexic acid, cefixime, ciprofloxacin, cotrimoxazole and cephalosporins which raises the question regarding rationality to empirically use of these antibiotics in UTI without culture and sensitivity reports. Urinary isolates are more sensitive to imipenem, meropenem, amikacin and nitrofurantoin. There is every need to constantly monitor culture and sensitivity pattern. Large scale prospective studies are necessary in tertiary level hospital to make a guide line for antibiotics in UTI.

Biography

Md. Mahabubul Islam Majumder has completed his MBBS degree from Chittagong Medical College under Chittagong University at the age of 23 years in 1983 & completed (FCPS) Fellow of College of Physicians & Surgeons in Internal Medicine in 1995 from (BCPS) Bangladesh College of Physicians & Surgeons. Now he is working as Professor of Medicine in Department of Medicine in Comilla Medical College, Comilla, Bangladesh. He has published more than 32 papers in reputed national & international journals and was speaker in more than 50 national & international seminars. Now he is conducting large scale study on Osteoporosis and diseases of infection. He is a member of American College of Physicians (ACP) also.

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