

## **Infectious Disease Conf 2019: Uropathogens among Diabetic Patients at Zagazig University Hospital's Outpatient Clinics: Prevalence and Their Antibiotic Susceptibility Patterns - Walid Mohamed Attiah, Zagazig University**

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The incidence of diabetes mellitus is increasing worldwide; it has some major effects on the genitourinary system, which makes diabetic patients more liable to urinary tract infection. Despite, all these problems, antibiotics are prescribed empirically which may adversely affect antibiotic resistance so far. Therefore, the aim of this study was to identify the etiologic agents of UTI and their antibiotic susceptibility pattern among diabetic patients attending diabetic clinic of Zagazig University Hospitals. Material and Methods: A cross-sectional study was conducted in a total of 195 diabetic patients who suffered change from June 2017 to June 2018. Demographic and clinical data were collected. Clean catch mid-stream urine samples were collected and processed for identification of uropathogen. Results: *E. coli* was the commonest isolated uropathogen followed by *Klebsiella pneumoniae*. All the isolated bacteria were resistant to ceftriaxone but sensitive to ciprofloxacin. Gram-negative isolates demonstrated high level of sensitive to amikacin in 188 (96.4%) patients, imipenem and meropenem in 5 (2.6%) and ceftazidime in 187 (95.9%) patients. Gram-positive bacteria showed sensitive to amoxicillin-clavulanate, linezolid and vancomycin in 7 (3.6%) patients. Multidrug resistance was observed in about 30% of the isolated uropathogens. Conclusion: Pathogens are mostly resistant to antibiotics including ceftriaxone and ampicillin with few exceptions including nitrofurantoin and sulfamethoxazole-trimethoprim.

Updates on challenging art of Syphilis diagnosis and management

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Syphilis is a sexually transmitted disease caused by the spirochete *Treponema pallidum*. Every year a lot of patients are diagnosed and treated for this infection. Patients may be totally asymptomatic discovered during routine screening tests or present with various types of manifestations mimicking a lot of other disorders based on the stage of infection including primary, secondary, or tertiary infection.

Serologic tests provide a presumptive diagnosis of syphilis. There are two types of serologic tests for syphilis: nontreponemal tests and treponemal-specific tests. The most challenging steps are coming afterwards for interpretation of serologic testing and treatment selection.

A lot of factors including history of drug reaction, pregnancy, HIV status, history of previous treatment, possibility of CNS involvement and stage of the infection would be effective on the decision about treatment and follow up.

There are different guidelines on treatment which should be used promptly, also follow up would be challenging as a lot of patients are considered non responder and receive multiple cycles of treatment while there may be another explanation for their serologic status.

The course and route of treatment is so different based on the stage of diseases and patients manifestations so there is no one prescription suitable for all patients. Penicilline has been the best choice for all stages of syphilis management. But the dose and route of administration would be different for early syphilis the standard treatment would be Penicillin G benzathine 2.4 million units IM once, In Late syphilis Penicillin G benzathine 2.4 million units IM once weekly for three weeks is proposed and for Neurosyphilis treatment Aqueous penicillin G 3 to 4 million units IV every four hours for 10 to 14 days is advised.

In this session we are going to have a look on the practical approach to a patient with syphilis to provide

the best diagnosis and most effective treatment. Alternative therapeutic options and follow up schedule will be discussed also.

In recent years, silver nanoparticles (AgNPs) have drawn a great attention globally because of their unique characteristics making them used in a wide of applications in many fields. Lately, researchers have focused on the green synthesis of AgNPs. This type of synthesis is considered as an ecofriendly, low cost, and effective method for preparing nanoparticles; in contrast to chemical reduction methods that depend on using reducing agents which are not environmentally safe. In the present work, aqueous extracts of several plants including green tea, Ghaf, sage, ginger, garlic and capsicum were successfully used for the synthesis of the silver nanoparticles by reducing Ag<sup>+</sup> ions (from AgNO<sub>3</sub>) into nanoparticles. The active constituents of the plants such as polysaccharides, phenolics, terpenoids and flavonoids play an important role as naturally reducing agents. Additionally, these groups of naturally occurring compounds can be used as capping agents for the AgNPs. In this study, we concentrated on the synthesis of AgNPs and compared between different products of AgNPs from different plants in terms of size, zeta potential, and antimicrobial activity. Charge of AgNPs from different plants were characterized using zeta potential analyzer, while UV-Vis spectrophotometer, dynamic light scattering (DLS), and transmission electron microscopy (TEM) were used for size measurement and to study the relationship between absorbance spectra and particle size. Figure 1 shows TEM and DLS results of size analysis of AgNPs synthesized from green tea extract. Moreover, we tested the antimicrobial activity of the synthesized AgNPs products, and they revealed a good activity against gram positive and gram negative bacteria and antifungal activity.