Microbiology & Virology 2018: Isolation, characterization and identification of urinary tract infections bacteria and their antibiotic resistancy- Karzan M. Khalid- Soran University

Karzan M. Khalid, Soran University, Iraq

Urinary tract infection caused by bacteria leads to inflammation and over growth of uropathogens and prevalence of infection for both genders, but women are more vulnerable especially at the sexually active ages. Nine from isolates sixteen patients were microscopically tested. characterized. identified using different media and biochemical tests. The highest rate of isolated bacteria were Escherichia coli and Staphylococcus aureus (23.52%), followed by Staphylococcus saprophyticus, Entrococcus faecalis (17.64% and 8.82), respectively and Entrobacter aerogenes, Klebsiella pneumonia, Proteus vulgaris and Pseudomonas aeruginosa were (5.88%), only 2.94% of bacteria was detected as Proteus miralilis. Effect of different antibiotics was reported, maximum effect showed by gentamycin and chloramphenicol (80% and 70%), respectively. Contrastingly, amikacin levofloxacin 50%. and 40%. ceftriaxone nitrofurantoin and amoxicillin 30%, Cefixime 10%. In conclusion, unsuitable medication prior to urine culturing causes to increase prevalence of gram positive bacteria as much as gram negatives developing multidrug and resistance

A urinary tract infection (UTI) is the urinary tract of the part that affects an infection. At

the point when it influences the lower urinary lot it is known as a bladder contamination (cystitis) and when it influences the upper urinary lot it is known as a kidney disease (pyelonephritis). Symptoms of a lower urinary tract infection include painful urination, frequent urination, and an empty bladder that can cause urinary incontinence. Symptoms of a kidney infection include fever and pain in the flank usually in addition to a lower urinary tract infection. Rarely, urine may appear bloody. In the very old and the very young, symptoms may be vague or nonspecific.

The most common cause of infection is Escherichia coli, although other bacteria or fungi can sometimes cause the disease. Hazard factors incorporate female life systems, sex, diabetes, heftiness, and family ancestry. Although sex is a risk factor, UTIs are not classified as sexually transmitted infections (STIs). A kidney infection, if it survives, usually follows a bladder, but can also result from an infection transmitted through the blood. Diagnosis in healthy young women. In people with vague symptoms, it can be difficult to diagnose bacteria. In complicated cases or treatment fails, a urine culture may be helpful. In uncomplicated cases, UTIs are a short course of treatment with antibiotics such as

Vol. 4, Iss.2 2020

Short Communication

nitrofurantoin or trimethoprim / sulfamethoxazole. Many antibiotics are used to treat the disease. In complicated cases, longer treatment or intravenous antibiotics may be necessary. If symptoms do not improve within two or three days, additional diagnostic may be required. tests Phenazopyridine can help relieve symptoms. In the case of bacteria or white blood cells, those who do not have their urine but do not have any symptoms, antibiotics, etc. In people with frequent infections, a short course of antibiotics can be taken as soon as symptoms appear or long-term antibiotics can be used as a preventative measure. Additional diagnostic tests may be needed. Phenazopyridine can help relieve symptoms. In the case of bacteria or white blood cells, those who do not have their urine but do not have any symptoms, antibiotics, etc. In people with frequent infections, a short course of antibiotics can be taken as soon as symptoms appear or long-term antibiotics can be used as a preventative measure. Additional diagnostic tests may be needed. Phenazopyridine can help relieve symptoms. In the case of bacteria or white blood cells, those who do not have their urine but do not have any symptoms, antibiotics, etc. In people with frequent infections, a short course of antibiotics can be taken as soon as symptoms appear or long-term antibiotics can be used as a preventative measure.

Infection of the lower urinary tract is also called a bladder infection. The most common symptoms are vaginal discharge and severe pain in the absence of urinating and frequent urination (or an urge to urinate). These symptoms can range from mild to severe and healthy women last an average of six days. Pain may be present in the pubic bone or in the lower back. People with an upper urinary tract infection or pyelonephritis may experience flank pain, fever, or nausea and vomiting in addition to the classic symptoms of a lower urinary tract infection. Rarely, the urine may appear in bloody or containable pus

Women are more prone to UTIs than men, because in women, the urethra is much shorter and closer to the anus when a woman's estrogen levels decrease and menopause, her risk of increased urinary tract infections increases, and the protective vaginal flora. In addition, menopause is associated with recurrent urinary tract infections after vaginal atrophy. Chronic prostatitis in the form of chronic prostatitis / chronic pelvic pain syndrome and chronic bacterial prostatitis (not acute bacterial prostatitis) can increase the risk of infections with age.

In ladies with cervicitis (aggravation of the cervix) or vaginitis (irritation of the vagina) and in youngsters with UTI indications, a Chlamydia trachomatis Neisseria or gonorrhoeae disease might be the reason. These diseases are normally delegated a urethritis instead of a urinary lot contamination. Vaginitis may likewise be because of a yeast contamination. Interstitial cystitis (interminable agony in the bladder) might be considered for individuals who experience various scenes of UTI side effects yet pee societies stay negative and not

Vol. 4, Iss.2

2020

Journal of Pathology and Microbiology

improved with anti-toxins. Prostatitis (aggravation of the prostate) may likewise be considered in the differential analysis.

Hemorrhagic cystitis, characterized by blood in the urine, can cause a number of secondary including: infections. radiation causes. therapy, underlying cancer, drugs, and toxins. Drugs that cause this problem include 2 to 40% of levels with the chemotherapy drug cyclophosphamide. Eosinophilic cystitis is a rare condition where eosinophils are present in the bladder of the wall. The signs and symptoms are similar to those of a bladder infection. Its cause is not entirely clear; However, it can be linked to food allergies, infections and medications, among others Antibiotics are the mainstay of treatment. Phenazopyridine is sometimes prescribed for the first few days in addition to antibiotics to help relieve burns and urgency. However, it is not routinely recommended for its use in safety concerns, with a higher risk of methemoglobinemia (higher blood methemoglobin level). Acetaminophen (paracetamol) can be used for fevers. There is no good evidence for cranberry products that treat current infections.

Antibiotics can save lives when needed. But when they don't, they kill both the good and the bad bacteria, and put the bacteria in the body to survive. And bacteria are real survivors! Under pressure, bacteria exchange genetic material and evolve and acquire survival traits like the ability to pump, break down, or avoid the antibiotics we want to use against them. Without antibiotic tools to kill them, these bacteria can attack us freely, and sometimes spread. If antibiotic resistance grows, more people will need intravenous treatment than UTIs with simple oral antibiotic treatments.

E-mail: karzan.khalid@bio.soran.edu.krd