Positive urine culture of patients with urinary tract infection and antibiotic response of microbes isolated from the in great oil hospital of Ahvaz (ministry of oil)

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Abstract: Urine culture is a diagnostic test to detect bacteria in urine is performed and the identification of microbes that cause urinary tract infections. Urinary tract infection (UTI) is common in women and children, and all except the urinary tract, the urethra is sterile. E-coli are the most common germs. In a 1024 study by the antibiogram were 10,132 people suffering from urinary tract infection. Of these, 222 patients (21.7%) men and 801 women (78.3%) women with positive urine culture were 124 people (12.1%) were diabetic and 21 were women and 898 I and 103 patients (87.8%) were non-diabetic, 83.4% of patients in the outpatient and other inpatient wards have had positive urine cultures.
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1. Introduction

Most people instead of the literal word of urinary tract infection bladder infection and a bladder infection that can cause inflammation and often feel the need to eliminate symptoms such as frequent urination and dysuria associated with, who used. This condition, also called cystitis among women 20 to 50 years old who are sexually active, is relatively common.

But bacteria can infect any part of the urinary tract. Urinary excretion of urine from the kidneys, which can be initiated through tubes called ureters to the bladder, where urine collects that, can be drawn. The urethra, which it was, ends with a short tube that carries urine out of the body.

When bacteria reach the intestines, the rectum and the urethra into the bladder is elevated, infection may occur. Bacteria can infect the bladder and cause cystitis or they can develop without symptoms, they are amplified. In each of these cases, the bacteria may travel up the ureters and kidneys are infected. Kidney infections are dangerous and may lead to premature delivery or other adverse effects.

1.1. Risk factors for urinary infection

A. *Sex*
B. *Using birth control pills*
C. *Low estrogen levels*
D. *Mark cutter intermittent or persistent urinary tract*
E. *Diabetes and cancer, for example, due to reduced resistance to infections.*
F. *Urolithiasis*

1.2. Symptoms of urinary tract infection (symptom)

Fever, chills, abdominal and leg cramps - frequent urination - an urgent need to evacuate

*1.3. Signs **(sign)***

Dark urine or no residual particles in urine - a foul-smelling urine and blood in urine Urinary tract infections are divided into two groups: infections, superficial and deep infections. Superficial infections of the urinary tract or mucous surface coating affects more than ninety percent of these infections includes device.

While deep tissue was infections deep involvement of the kidneys, prostate and testicular cause. The deep infections, patients usually have high fever and bad general condition.

There are basically two categories of symptoms: symptoms of irritation and inflammation of the urinary tract infection varies depending on location, and general symptoms of infection in the body, including anorexia, nausea, vomiting, etc.. In addition, symptoms in children and adults vary, but common symptoms of urinary tract infections, there should be aware of all the people, the symptoms include:

a) *Dysuria and frequency due to bladder irritation and inflammation caused by infection, as well as low tolerance of the bladder in children and adults may sometimes be able to lead to urinary incontinence.*
b) *Discoloration of the urine cloudy or bloody urine, usually patients to panic, if superficial and simple bladder infection may also cause rupture of capillaries in the mucosal inflammation and blood-red blood and urine can be quite the treatment of infections immediately improved.*
c) *Fever, chills and nausea and vomiting in patients under one year of urinary tract*

infections and deep infections, kidney, prostate and testis in adults is common.

d) *Reduction and growth in children. Mothers in the presence of such symptoms should see a doctor to check for urinary tract infection. 5. Flank pain deep in the kidneys and severe infections with fever, chills and nausea and vomiting.*

e) *Difficulty in urination and urinary retention, bladder infections and prostate and urethra may be detected. The study was conducted in Finland, the risk of urinary tract infection in women of the fermented milk products like yogurt, fruit juices that are like seeds, berries, barberry, blueberries are used, compared with other women was very low.*

The researchers say that so many Hungarians urinary infections in women by the bacteria in the intestinal tract there are, and foods mentioned above may affect the bacteria in the stool and prevent infection of the urethra into the urine. Also believe that the live bacteria in yogurt are replaced by harmful bacteria in the intestinal tract and causes the bacteria will move toward the bladder.

1. Materials and Methods

1.1. Objective:

To identify the most common microbes found in the urine of patients admitted in different wards of the hospital and their antibiotic resistance is the best treatment to begin. In a 1024 study by the antibiogram were 10,132 people suffering from urinary tract infection. Of these, 222 patients **(21.7%)** men and 801 women **(78.3%)** women with positive urine culture were 124 people **(12.1%)** were diabetic and 21 were women and 898 and 103 patients **(87.8%)** were non-diabetic, 83.4% of patients in the outpatient and other inpatient wards have had positive urine cultures. In part were 5. 6%, Outpatient Clinic 5.83%, children 2.7%, infant 5.1%, ccu% **1.2** had.

2. Results

2.1. The prevalence of bacteria

Most the age group was:

At risk over 65 years ***(23.4%)***
30-34 *years* ***(12.1%)***
38-39 *years* ***(10.81%)***
Lowest in the ***0-4 years (1.8%)***

In this experiment, the error coefficient, α = **0.05** There was no significant association between diabetes and urinary tract infection (Table1).

Table1. Contamination by bacteria and the percentage

No.	bacteria	No. Sample	%
1	***E-coli***	**744**	*72.7*
2	***Klebsiella***	*151*	*14.8*
3	***C. p.***	*39*	*3.8*
4	***Staphylococcus Pseudomonas***	*24*	*2.3*

Significant relationship between gender and urinary tract infection is even α = **0.01** urinary tract infection in women is common agreement that the world of study.

2.2. Strains isolated on the basis of sensitivity and antibiotic resistance

A. **E-coli**
Highest Sensitivity to co-trimoxazole(100%)Nitrofurantoin (92.1) and amikacin (90.9) and the highest resistance to ampicillin (81.3) and nalidixic acid (39.7) respectively.

B. Klebsiella
The highest response in vitro to amikacin (87%) ciprofloxacin (81%) and ceftizoxime (75%) and highest resistance to cephalexin - Ampicillin and nitrofurantoin

C. Pseudomonas
Co-trimoxazole highest sensitivity (100%) and amikacin (75%) and highest resistance to nitrofurantoin (96%) nalidixic acid **(95.5),** and bacterim were 91%.

D. Staphylococcus coagulase-positive
Most sensitive to nitrofurantoin (% 91.2) - 73% and Bacterim- amikacin 75% and 100% greater resistance to tetracycline and "ampicillin (100%) were reported.

E. Proteus
Most laboratory response to amikacin, ciprofloxacin 100%, 90% and 100% more resistant to cephalexin and nitrofurantoin was 80%.

F. Entero bacter
Highest Sensitivity to amikacin, 100% - 100% nalidixic acid, ciprofloxacin and gentamicin % 90.5 and the highest resistance to tetracycline, and cephalexin was 50%.

G. Citrobacter

The highest sensitivity to ciprofloxacin and gentamicin 88% and the highest resistance to the bacterim and 33% nalidixic acid 33%.

H. Streptococcus

Highest susceptibility to amikacin and nalidixic acid 100% and highest resistance to ciprofloxacin were the 83.3% and Bacterium and 78. 3%.

Reference

1. American Foundation for Urologic Diseas. 300 West Pratt Street, Suite 401, Baltimore, MD 21201.
2. Gilchrist A, Au CE, Hiding J, et al. Quantitative proteomics analysis of the secretary pathway. Cell 2006; 127:1265-81.
3. Chernecky,CynthiaC,andC,Berger,Barbara.J.La boratory Tests and Diagnostic Procedures. 3 rd ed. Philadelphia, PA: W.B.Saunders Company, 2001.
4. Kee, Joyce LeFever. Handbook of Laboratory and Diagnostic Tests. 4th ed. Upper Saddle River, NJ:Prectice Hall, 2001.
5. Mellman I, Warren G. The road taken:past and future foundations of membranetraffic. Cell 2000; 100:99-112.
6. Schekman R. SEC mutants and the secretory apparatus. Nat Med 2002; 8:1055-8.
7. Rothman JE. The machinery and principles of vesicle transport in the cell. NatMed 2002; 8:1059-62.
8. Ellgaard L, Helenius A. Quality control in the endoplasmic reticulum. Nat RevMol Cell Biol 2003; 4:181-91.
9. Vembar SS, Brodsky JL. One step at atime: endoplasmic-reticulum-associateddegradation. Nat Rev Mol Cell Biol 2008;9:944-57
10. Trucco A, Polishchuk RS, Martello O,et al. Secretory traffic triggers the formation of tubular continuities across Golgi sub compartments. Nat Cell Biol 2004; 6:1071-81.
11. De Matteis MA, Luini A. Exiting the Golgi complex. Nat Rev Mol Cell Biol2008; 9:273-84.
12. Braulke T, Bonifacino JS. Sorting oflysosomal proteins. Biochim Biophys Acta2009; 1793:605-14.
13. Blackstone C, O'Kane CJ, Reid E. Hereditary spastic paraplegias: membrane traffic and the motor pathway. Nat RevNeurosci 2011; 12:31-42. [Erratum, Nat Rev Neurosis 2011; 12:118.]
14. Hanson PI, Shim S, Merrill SA. Cellbiology of the ESCRT machinery. CurrOpin Cell Biol 2009; 21:568-74.
15. Lenz M, Morlot S, Roux A. Mechanical requirements for membrane fission: common facts from various examples. FEBS Lett 2009; 583:3839-46.
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