

URINARY TRACT INFECTION

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Urinary tract infection may present in as a problem for treatment. Especially when the organism have developed antibiotic resistance. As in any other bacteriological disease one has to know exactly if the organisms causing the urinary tract infection is sensitive to the particular antibiotic which the patient is getting. Thus one has to do the sensitivity test.

Here urine culture and sensitivity test done in H. M. G. Public Health Laboratory during the period 1. 1. 025, to 14.5.025 has been analysed. In total 73 tests were performed. All these samples were from different sources although the majority were from Bir Hospital.

Method:-Sterile test tubes were supplied to patient to collect the urine in sterile condition as far as possible. But this could not be done in patient who come from outside. In these cases patient were advised to boil the bottle first and then allow it to dry. After that urine was collected in dry bottle. This could have been the cause of some mixed infection and contamination.

Urine was cultured directly. It was plated into nutrient agar, blood agar and Macconkey media. The plates were examined after 24 hours and pure culture were then plated directly for sensitivity. The sterile plates were then incubated for another 24 hours. No anaerobic culture was done. So a few cases might have been missed. As far as possible, different tests were performed to identify the individual culture. From the cases analysed, there is no difference in incidence of infection between male and female. As the number of cases were only 73 this might not have given us the true picture.

Only pure growth was taken into account and all mixed growth and contamination were neglected. Because the mixed growth and contamination

could have been due to contamination from skin during collections and some change during culture in Laboratory.

Organism from the cases analysed, *E. Coli*, is the most common organism then comes *proteus* and *Staphylococcus*, Coagulase Positive. The species identification of *Proteus* was not done. In cases analysed *Pseudomonas* was isolated from none of the specimen.

Antibiotic Sensitivity:— In the chart the name of antibiotics and their sensitivity pattern has been given. Furandantin was found to be the most effective and useful for *E. Coli*, and *Proteus*.

As regards the Coagulase Positive *Staphylococcus*, Penicillin still seems to be a useful drug, and sulpha was effective in none of the sensitivity test.

It must also be emphasized that there are some other organisms causing urinary tract infection. These organism have not been included in this series of 73 cases.

In one case Acid-fast bacilli was isolated in centrifuge deposit of a female patient. Thus in resistant cases, one has to keep in mind the possibility of tuberculosis of urinary tract.

Again quite often during the routine examination of urine, microfilaria larva are seen and in our short experience, filarial infection of urinary tract is not uncommon.

In conclusion my whole aim of analysing was to know the useful antibiotics for different organisms in our day to day practice.

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Statistical Summary

1. Time 1.1.025-14.5.025.
2. Total No. 73
3. Sex distribution

Male 29.	Female 43.	Children 1.
<u>4. Organisms</u>		
a) <i>E. Coli</i>	b) <i>Proteus</i>	c) <i>Staphylococcus coagulase</i> positive & negative
31.	8.	8.
d) Gram negative rod, 1.		
f) Gram positive and negative cocci 1.		
g) Sterile 27		
<u>5. Antibigram.</u>		

<u><i>E. Coli.</i></u>	<u>Sensitive.</u>	<u>Resistant.</u>
1. Furadantin.	15.	5.
2. Streptomycin	21.	8.
3. Tetracycline	3.	20.
4. Chloroamphenicol	2.	27.
5. Penicillin	1.	27.
6. Sulfa	⊗	24.

<u><i>Proteus</i></u>		
1. Furadantin	3.	1.
2. Streptomycin	4.	2.
3. Tetracycline	3.	5.
4. Chloroamphenicol	⊗	1.
5. Penicillin	4.	4.
6. Sulfa	⊗	8.

	<u><i>Staphylococcus coagulase positive</i></u>	
1. Furadantin	3.	1.
2. Streptomycin	4.	2.
3. Tetracycline	3.	5.
4. Chloroamphenicol	⊗	1.
5. Penicillin	4.	4.
6. Sulfa	⊗	8.