

Study of Prevalence of Chlamydia Trachomatis in Non Specific Urethritis Patients

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Abstract: To study the prevalence of Chlamydia trachomatis in non specific urethritis cases with Chlamydia rapid card test in 100 cases. The material for this study consisted of male patients of NSU. The prevalence of Chlamydia trachomatis in NSU patients, Constitutes 19%, remaining 81 cases were negative for Chlamydia trachomatis. We have treated 19 chlamydia positive cases with Azithromycin and Doxy Cyclin. The cure was assessed by the relief of symptoms and CRCT negative. Hence it can be concluded that the prevalence of Chlamydia trachomatis in the etiology of "Non specific urethritis cases was 19% in our study.

Keywords: Azithromycin, Chlamydia trachomatis, CRCT, NSU Pts.

I. Introduction

Sexually transmitted diseases remain the commonest communicable diseases found in the world today and number of patients treated for them continue to increase year by year.

One of these diseases assuming greater importance recently is "Non specific genital infection. NSGI occurs in both sexes. In females it is a syndrome. In males it is urethritis only. The term NSGI does not give the appropriate meaning because in males, it means urethritis, in which non specific cases are found, but immunerable agents are named as causative agents for NSGI. Now the accepted terminology is Non specific urethritis in males. The WHO technical report series 660-1981- uses the terminology of NSU. The etiology of NSU is multifactorial. The various organisms included in the etiology are Chlamydia, mycoplasma, pyogenic organisms, protozoa like trichomonas, viruses like herpes simplex, fungi like candidal infections, and intra-urethral sores, foreign bodies. Since Chlamydia is main cause for NSU i.e. 15-40% we under took this project of studying the prevalence of Chlamydia in "Non specific urethritis cases.

Aim:

The aim of study is to study the prevalence of Chlamydia trachomatis in male patients of NSU. Who attended the sexually transmitted diseases out patient department.

II. Materials And Methods

The material for this study consisted of 100 male patients of Non-specific urethritis who attended the out patient department of STD OP, S.V.R.R. Govt. General Hospital, Tirupati, A.P. The known contacts and wives of married people were brought and investigated.

The following investigations were done for every patient. Chlamydia rapid card test (Immuno Chromatographic assay) was done in 100 cases to note positive cases of Chlamydia and in healthy population, This was control group. Gram staining method for the Diplococci, routine urine examination, urine for culture and sensitivity for pyogenic group of organisms, wet film for Trichomonas vaginalis, for pus cells. Blood for VDRL.

Chlamydia rapid card test (Immuno Chromato graphic Assay):

Principle of test: The Chlamydia rapid card test is an immune chromatographic assay, which utilizes a unique combination of monoclonal antibodies to selectively identify Chlamydia trachomatis antigen in endocervical (or) endo urethral swab specimens with a high degree of sensitivity.

Materials:

- 1) Pouched test card
- 2) Extraction Buffer-1
- 3) Extraction Buffer-2
- 4) Sample swabs

Assay procedure:

Extract:

1. Place the specimen swab into the extraction tube. Add 12 drops of Reagent 1 (red cap) to extraction tube. Mix contents well with the swab and left stand for 5-10 mts.
2. Add 2 drops of Reagent II (Green cap) to extraction tube. Mix contents well with the swab and let stand for 5-10 mts. Remove liquid from the swab by pinching the rim of the extraction tube between thumb and finger and gently remove the swab from the tube.

Assay method:

1. Bring up all reagents and specimens for room temperature.
2. Label the device with specimen identification.
3. Add 3-5 drops from the Extraction to the sample well.
4. Read the result within 15 mts, do not interpret result after 20 mts.

Positive:

Two pink coloured bands appear one in the control region (c) and one in test region (T) indicates a positive result and that the sample contains Chlamydia trachomatis antigen.

Negative:

Only one pink coloured band appears in the control region (c) the result is negative for chlamydia trachomatis antigen.

Invalid if no bands appear, or a test band appears without a control band.

III. Results

In the control group 50 persons, one person was positive for Chlamydia trachomatis, urine culture and sensitivity were normal. There was no history of burning micturition. So this shows that the prevalence of Chlamydia in normal population is 2% in this area. Several studies earlier shows the prevalence of Chlamydia trachomatis in normal population ranged from 0–5%.

In the second group of 100 patients attending the STD Dept., S.V.R.R. Govt. General Hospital, Tirupati. The urethral swabs from all patients tested, only Nineteen members were positive for Chlamydia trachomatis. Thus the prevalence of Chlamydia in this group is 19%. This test was done by Chlamydia rapid card test (Immuno Chromatographic Assay).

S.T.D. Patients – Chlamydia Positive Cases Profile

Sl. No.	Name of the Patient	Age/ Sex OP No.	Clinical diagnosis	Blood for VDRL	Urine for C/S	Chlamydia test
6	Raju	M/22 Yrs OP 8349	NSU	Non reactive	Negative	Positive
9	Madhusudan	M/17 Yrs OP 83912	NSU	Non reactive	Negative	Positive
10	Ramanjaneyulu	M/38 Yrs OP 92321	NSU	Non reactive	Negative	Positive
12	Pullaiah	M/27 Yrs OP 92565	NSU	Non reactive	Negative	Positive
20	Gopi	M/28 Yrs OP 0085	NSU	Non reactive	Negative	Positive
24	J. Srinivasulu	M/38 Yrs OP 0145	NSU	Non reactive	Negative	Positive
29	P.V. Chinnaiah	M/25 Yrs OP 01306	NSU	Non reactive	Negative	Positive
30	Eswaraiah	M/32 Yrs OP 03055	NSU	Non reactive	Negative	Positive
37	Nagesh	M/30 Yrs OP 04456	NSU	Non reactive	Negative	Positive
49	Narasimhulu	M/29 Yrs OP 9799	NSU	Non reactive	Negative	Positive
50	Ramalaxmi Reddy	M/35 Yrs OP 11407	NSU	Non reactive	Negative	Positive
52	Beesanna	M/35 Yrs OP 11500	NSU	Non reactive	Negative	Positive
54	R. Venkataramana	M/40 Yrs OP 11551	NSU	Non reactive	Negative	Positive
58	Chinna	M/24 Yrs OP 12472	NSU	Non reactive	Negative	Positive

62	Rangaswamy	M/33 Yrs OP 13176	NSU	Non reactive	Negative	Positive
67	Siva	M/19 Yrs OP 13657	NSU	Non reactive	Negative	Positive
70	Ramesh	M/22 Yrs OP 15130	NSU	Non reactive	Negative	Positive
78	Bhusanam	M/50 Yrs OP 16615	NSU	Non reactive	Negative	Positive
87	Venkatarami Reddy	M/25 Yrs OP 42714	NSU	Non reactive	Negative	Positive

Among the 19 patients who were positive for Chlamydia, urine for them show negative for pyogenic group of organisms. only 10 patients came for follow up.

Out of 100 cases studied, the various signs and symptoms were as follows:-

Signs and Symptoms	Number of cases
Dysuria	100 cases
Discharge per Urethra – Mucoid	24 cases
Mucopurulent	2 cases
Meatal redness	4 cases
Perianal discomfort	8 cases
Arthralgia	2 caases

Out of 100 NSU cases studied the number of cases associated with other STDs were as follows:-

	Associated STD	Number of Patients
1.	Herpes genitalis	6
2.	Pearly penile papules	3
3.	Balanoposthitis	8
4.	Genital scabies	1

Response to Chemotherapeutic agents:

We have treated 19 Chlamydia positive cases and partners were treated with the following antibiotics.

1. Cap Tetracyclines HCL 500 mg orally 6 hourly for 2 weeks
2. Doxycycline 100 mg orally twice daily for 2 weeks
3. Minocycline, 200 mg stat 1 orally, then 100 mg bid for 7 days.
4. Tab. Azithromycin 1 g single dose.
5. Erythromycin stearate, 500 mg 6th hrly orally for 2 weeks.

All cases responded well with treatment, symptoms subsided and Chlamydia trachomatis came negative after 2 weeks of treatment.

On observation of treatment in patients the Azithromycin and Doxycycline have been shown to have equal efficacy and better cure rates than other drugs.

Percentage of prevalence of C. trachomatis in the etiology of NSU:

In our study of 100 cases of Non specific urethritis, we got 19 cases revealing the presence of Chlamydia trachomatis in their urethra thus making the percentage of 19%. Various studies reported that the percentage of Chlamydia trachomatis in the etiology of NSU ranged from 6.8% (Harry and Collegues, 1994) to 30.8% (Hirose, 1998) our results compare well with above workers.

IV. Discussion

It is not easy to assess the magnitude of the problem of non specific urethritis, in the population (or) in a given area, due to lack of reliable estimates, as it is not a reportable disease. The culture and lab tests are costly. More over a considerable percentage of patients with remain asymptomatic (or) the patient may overlook the mild symptoms of urethritis. Majority of the patients attend the clinics run by unqualified personnel or by private practitioners.

Among the 100 cases of Non Specific urethritis studied attending the out patient Dept. of sexually transmitted diseases S.V.R.R. Govt. General Hospital, Tirupati, the urethral swabs from all patients were tested by Chlamydia rapid card test and only 19 cases had their urethral swab positive for Chlamydia trachomatis and remaining 81 cases were negative for Chlamydia trachomatis. Thus the prevalence of C. trachomatis in this group is 19%. This condition is commonly seen in the age group of 15 years to 40 years, where the sexual activity will be maximum and the extramarital and premarital exposures are prevalent.

V. Conclusion

There is not much work on the prevalence of Chlamydia trachomatis and their role in the causation of “Non-specific urethritis”, our work revealed that the prevalence of Chlamydia trachomatis in the etiology of NSU is 19%. As this work is limited to a small number of patients, this needs further study.

The prevalence of chlamydia trachomatis is 19% in 100 cases of non specific urethritis in the department of STD.

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