Seroprevalence Of Chlamydial Infection In Patients Attending STD

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Abstracts: Background: Chlamydial disease has the major scourges of humans. In women severe, sometimes irreversible complications usually present as the first symptom of genital infection. Though contemporary diagnostic methods are reliable for identifying infections there are economic and acceptance issues surrounding certain intervention strategies involving frequent community wide screening for early detection and for mass treatment. So we aimed at the Chlamydial infections in the community. Method: The study population was 150 cases out of which 100 cases were symptomatic patients who are attending STD clinic and 50 were control group. We selected ELISA test by the patella Chlamydia IgG ELISA kit supplied by BIO-RAD agencies, Hyderabad for detecting Chlamydia IgG antibodies after the Ethical Committee approval. Results: The test results were tabulated. Out of 100 test sera collected for chlamydial infections with variety of clinical symptoms, 12 patients have shown seropositivity, 20.83% belongs to the age group of 21-25 years, 17.64 % of them are belongs to rural group,14.18% are females and 16.66% of patients suffers with syphilis. Conclusion: Present study concludes that 12 cases were positive for chlamydial infection. Majority of the patients belong to the age group of 21-25 years and least incidence was seen among the age group less than 20 years and females were affected more than males. Distribution of chlamydial infection was more in rural area than urban and was found to be syphilis than other STD cases. [Ramadevi V et al NJIRM 2012; 3(2) : 17-19]

Key words: ELISA, Chlamydia IgG antibodies

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Introduction: Chlamydial disease has been known from the earliest records as one of the major scourges of human. Members of the genus chlamydial are obligate intracellular, gram negative bacteria causing numerous oculo-genital and respiratory infections in humans. The genital infection leads to cervicitis and urethritis as primary sexually transmitted disease. Reports suggesting genital Chlamydial infections may predispose to HIV related AIDS [1] and human papilloma virus – associated cervical dysplasias have heightened these concerns [2].

Although Chlamydial infections are treatable with anti bacterial agent's high proportions of the infections are often asymptomatic and subclinical [3]. Thus in women severe and sometimes irreversible complications usually present as the first symptom of genital infection. In additions while contemporary diagnostic methods are reliable for identifying infections [3] there are economic and acceptance issues surrounding certain intervention strategies involving frequent community wide screening for early detection and for mass treatment [4] to arrest silent or persistent infection

Material & Method: The study was approved by Ethical Committee. Consent of participants was taken before the study. The samples for the Present study are collected from M. G. M hospital Warangal. All the patients are selected from the STD clinic represented different strata of society from both rural and urban segments.

Inclusion criteria for selection**:** the women are sexually active patients with symptoms of urethral discharge, mucopurulent discharge from vagina, pyuria and post coital bleeding. The control group subjects are asymptomatic health workers.

Serum samples are collected from 150 cases out of which 50 cases are healthy workers working in hospital (control group). 5ml of venous blood samples are collected into sterile bottles, and then serum was separated and stored at 20 ^{0} C till use. The samples are tested for Chlamydia IgG antibodies by ELISA test by the patella Chlamydia IgG ELISA kit supplied by BIO-RAD agencies, Hyderabad. The technique of ELISA test was performed as per standard references serum[5]. The kit is an aid in the determination of immune status

when used with a single serum sample or is an aid in the determination of recent infection when used with paired sera. These results comparable in sensitivity and specificity to those of the indirect immunofluroscence test [5].

Result: The results are tabulated as incidence of the chlamydial infections, in different age groups, urban and rural groups, female and male groups, in relation to clinical diagnosis of syphilis, gonorrhoea, herpes and miscellaneous STD infections.

TABLE-1: Incidence Of Chlamydial Seropositivity Among The Study And Control Group

Group	No Of Sera Tested	Chlamydial Sero positivity (+Ve)	%
Study	100	12	12%
Control	50	Nil	0%

Discussion: The table -1 compares between the incidence of chlamydial seropositivity among the study and control groups suggests 12% is nearing the reports with Johnson et.al[6], less than the results obtained from the Gopal Krishnal et, al [7]. The percentage was high according to Mittal[8] , and Paroli 1990 [9] .

The lower percentage obtained in the present study can be due to the precision in selecting the test group; the titers are low in these cases so antibodies are not detected. Discrepancy can be attributed to following factors. Because if immune response resulting from repeated chlamydial infection. May be due to taking antibiotics for some other genital infection. Different (methods) kits of determination. The Table-2 reports on incidence of chlamydial seropositivity in different age groups nearing the results of Rietmeijer [10].

Table-2 : Incidence Of Chlamydial Seropositivity In Different Age Groups

Age	No. Of Sera Tested	No. + Ve	Percentage
< 20 Years	18	1	5.55%
21-25 Years	24	5	20.83%
26-30 Years	35	4	11.4%
> 30 Years	23	2	8.69%
	100	12	12%

Highest percentage of positive cases in the age group of 21-25 (20%) may be because of

- More number of clients per day.
- Illiteracy
- Low-socio-economic condition
- Living in unhygienic Condition
- Condoms are not used
- No regular check up
- Clients with genital infection.

The Table-3 reports on incidence of chlamydial seropositivity in urban and rural groups and the TABLE- 4 incidence of chlamydial seropositivity in female and male groups the percentage of seropositivity is higher in females and rural group. These reports are similar to that of Hitumen Balket et. al 2001[11] , Van Dwynhoven et, al [12] but parole[9] there is 60.6% in males group than in female group 50.6%.

Table-3: Incidence Of Chlamydial Seropositivity In Urban And Rural Groups

Group	No Of Sera Tested	No +Ve	Percentage
Rural	51	9	17.64%
Urban	49	3	6.12%
	100	12	

Table-4 : Incidence Of Chlamydial Seropositivity In Female And Male Groups

Group	No Of Sera Tested	+Ve	Percentage
Male	72	8	11.11%
Female	28	4	14.18%
	100	12	

Our study group places around Warangal basically under developed both economically and culturally. Most of the females are anaemic and are having negligible literacy.

The Table-5 reports on the incidence of chlamydial seropositivity in relation to clinical diagnosis approaches the incidence reported by Garland et al (2001)[13]. Our study enables chlamydial infection is a common infection especially in young women (21-25 year age group).

We selected the ELISA test as it is more suitable for laboratories to process many specimens. Thus providing an objective measurement. The isolation of Chlamydia is time consuming, expensive and requires viable cells for culture.

Table-5 : Incidence Of Chlamydial Seropositivity In Relation To Clinical Diagnosis

Clinical Diagnosis	No Of Sera Tested	+Ve	Percentage
Syphilis	12	2	16.66%
Gonorrhoea	43	6	13.95%
Herpes	20	2	10%
Miscellaneous	25	2	8%
	100	12	

Conclusion: Present study (Seroprevalence of Chlamydial Infection in Patients Attending STD [14]) concludes that out of 100 cases, 12 cases were positive for chlamydial infection. None of the control group (50 asymptomatic health workers) was chlamydia positive. Majority of chlamydial seropositive patients belong to the age group of 21-25 years and least incidence was seen among the age group less than 20 years. Chlamydial seropositivity was found to be more in females than males. All the STD patients had the complaints of cervical and urethral discharge and few had ulcers. Distribution of chlamydial seropositivity cases was more in rural area than urban. Chlamydial seropositivity in relation to clinical diagnosis was more in gonorrhoea than other STD cases.

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