

## INCIDENCE OF CHLAMYDIAL INFECTION IN WOMEN IN HYDERABAD

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The incidence of Chlamydial infection was studied in 160 women of different age groups in Hyderabad from different categories of patients. They were 50 prostitutes from red light area, 40 women with mucopurulent vaginal discharge, 40 women with infertility and 30 women attending antenatal clinics.

The enzyme linked immunoassay incorporated in Organics Immunocomb kit (supplied by Organics Ltd. Israel) was used to detect low level of antibodies in single serum dilutions. The study showed an incidence of 54% in prostitutes, 47.5% in women with mucopurulent vaginal discharge, 15% in women with infertility and 13.35% in women attending antenatal clinics.

**Key Words :** ELISA, Chlamydial infection

### Introduction

Chlamydial disease has been known from the earliest records as one of the major scourges of man<sup>1</sup> and it is one of the most common cause of sexually transmitted disease in male and female genital tract.<sup>2</sup>

This organism has been implicated in causing Trachoma in adult and neonatal conjunctivitis, non-gonococcal urethritis (NGU), Post gonococcal urethritis (PGU), Cervicitis, Pelvic inflammatory disease (PID) and other diseases.<sup>3</sup>

The group at higher risk are young urban sexually active women from low socio-economic group.<sup>4</sup> The disease can have disabling consequences for the afflicted women but the isolation of chlamydia is time consuming, expensive and demands experience and skill.<sup>5</sup>

In view of all this, there is demand for simpler and yet specific diagnostic method.<sup>1,4</sup>

A significant change in the titre of serum IgM or IgG antibodies indicates the presence of infection.

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Various studies show that elevated titres of IgG antichlamydial antibodies are indicative of active *C. trachomatis* infection, the antibodies appear in 2-3 weeks following infection. So serological diagnosis has a better role in screening the large population to know the incidence of chlamydial infection. A sensitive method must be used for the assessment of low level anti-chlamydial antibodies. The enzyme linked immuno assay incorporated in Organics Immunocomb<sup>tm</sup> kit has been used in the present study. This detects low levels of antibodies in a single serum dilution.

### Materials and Methods

A total of 160 women of different age groups were selected for the screening, they are categorised into four groups.

Group 1. 50 professional prostitutes from Mahboob ki mehndi (Red light area).

Group 2. 40 women with history of mucopurulent discharge investigated at Institute of Obst & Gyne, Hyderabad.

Group 3. 40 women who gave history of sterility and came to infertility clinic at Institute of Obst & Gyne, Hyderabad.

Group 4. 30 women attending Antenatal clinics from different Antenatal clinics in Hyderabad were chosen as control.

Serum was separated from these blood samples and stored at  $-20^{\circ}\text{C}$  till it was analysed.

The incidence of anti chlamydial trachomatis IgG were checked by using the Immunocomb<sup>tm</sup> chlamydia trachomatis antibody test kit (supplied by Organics Ltd. Israel). The test was performed according to the manufacturers instructions.

## Results

Out of 50 prostitutes 27 (54%) were positive for chlamydial antibodies, maximum percentage of positive cases were found in the age group of 26-30 years (66.61%) while among 40 cases of mucopurulent discharge investigated 19 (47.5%) were positive for chlamydial antibodies. Half of the positive cases were in the age group of 26-30 years (55.56%)

Out of 40 women with infertility who were tested for chlamydial antibodies, 15% were positive for chlamydial antibodies, whereas 30 women attending antinatal clinics were subjected to the test, of which 13.33% were positive for chlamydial antibodies. 20% of positive cases were in the age group of 21-25 years.

## Discussion

In the present study, incidence of *C. trachomatis* was highest in prostitutes with 54% positivity compared to reported study of 38% positivity from Johannison et al. Slight discrepancy can be attributed to the following factors: 1. Illiteracy 2. Low socio economic conditions. 3. Living in unhygienic conditions. 4. Sex with male partners with NSU 5. More

number of clients. In other groups like Group 2, Group 3, Group 4 incidence rate is 47.5%, 15%, 13.3%, in this Group 2 shows higher percentage, similar results were also observed by Schachter et al (48%)<sup>6</sup>, Paavonen et al (19.6%)<sup>7</sup>.

The prevalence of *C. trachomatis* in women attending Gynaecological out patients clinic and attending STD clinics varies between 4.6% to 33.3%.<sup>8,9,10</sup>

**Table I.** Showing the Incidence of Chlamydial Infection in various groups

Groups	No. of Patients Investigated	%age of positive Cases
G1-Prostitutes	50	27 (54%)
G2-Women with Mucopurulent Discharge	40	19 (47.5%)
G3-Women with Infertility	40	6 (15%)
G4-Women attending antenatal clinics	30	4 (13.33%)
Total	160	56 (35%)

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