

## CHLAMYDIA TRACHOMATIS INFECTION AND CERVICAL INTRA EPITHELIAL NEOPLASIA

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### SUMMARY

In the present study of 100 women with cervical erosion, cervical smears were subjected to Pap's stain for CIN and ELISA for detection of Chlamydia trachomatis infection, 3% women had ELISA positive smears. 6.3% women had grade I and 90.7% grade II smears. All the women with ELISA positive smears had grade III (dysplastic) smears. All these women were multiparas around 35 years.

One of the most disappointing aspects of medicine during past 25 years has been the great increase in the incidence of sexually transmitted diseases (S. T. D.). In this context, Chlamydia trachomatis infections are currently estimated to outnumber Gonococcal infections (Holme's 1985). Cervical Chlamydial infections, were detected approximately three times more frequently in, in situ or invasive carcinoma as compared to patients of non Chlamydial infected group (Allerding et al 1985). As association has been found between Chlamydial infection and incidence of cervical neoplasia by Allerding et al (1985). In the present study an attempt has been made to find

out the correlation between Papanicolaou grading in women with cervical erosion and Chlamydial infection detected by ELISA.

### MATERIAL & METHODS

Present study was carried out in the department of Obstetrics and Gynaecology of Mahatma Gandhi Institute of Medical Sciences with the help of the department of Pathology and Microbiology and Biochemistry. Cervical smears from 100 women with cervical erosion were subjected to Pap's staining and ELISA (Enzyme linked immunosorbent assay) for detection of Chlamydia trachomatis infection. These women were between ages 20 to 60 and having parity ranging from one to six.

### OBSERVATIONS

Out of 100 smears collected from these

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women, 3 women showed dysplastic changes in their cervical smears. All 3 had ELISA positive cervical swabs. All the women who were ELISA positive for Chlamydia trachomatis had dysplastic smears (III) 90.70% Pap's stain were grade (II) and rest were normal (I).

#### DISCUSSION

Chlamydia trachomatis leads to lower and upper genital tract infection. Studies have shown Chlamydia associated changes in cervical erosion, progressing to biopsy proved intraepithelial neoplasia (Harnekar, et al 1985) suggesting thereby that Chlamydia maybe cocarcinogen or potentiating agent for progression of cervical intraepithelial neoplasia. In a study by Johnson et al (1978) 11 out of 15 (73.3%) patients in whom antibodies to Chlamydia trachomatis were found had Pap's class II or class III smears in contrast to 3 out of 18 patients (16.7%) without antichlamydial antibodies.

In another study by Mantyjarvi et al (1985) out of 69 cases of CIN and invasive carcinoma 17 (24.64%) had Chlamydia trachomatis. In our study of 100 women of cervical smears subjected to Pap's stain for CIN and also ELISA for Chlamydia trachomatis infection, we found that all women who were ELISA positive had dysplasia (3%) while none with ELISA negative swabs had dysplastic change in their smears. However 90.7% women had inflam-

matory smear (II). These women with dysplastic smears were between 30 to 35 years with sexual contact of around 6 to 10 years.

World Health Organisation (WHO) has placed STD as the third common disease in India (Kapur 1982) and it has been estimated that there are about one and a half million cases of cervical cancer in the country at any given time with about half a million new cases being added every year (Bisht 1984). We are struggling to find out the etiology of this disease. Any correlation between Chlamydia trachomatis infection which is thought to be one of the commonest STD and CIN should be a significant finding in planning, screening and prevention of this killer disease.

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