Lower Genital Tract Infection with Chlamydia trachomatis in Women Requesting Induced Abortion

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Læknavaklan 1995; 81: 550-2

Postoperative pelvic infection is a serious complication of induced abortion, and may occur in 2-6% of cases. A study of the prevalence and distribution by age and marital status of cervical Chlamydia infection in 1991-93 in women seeking termination of pregnancy is in progress. The data for 1993 are presented and compared to results from a previous study. There were 686 women requesting termination of pregnancy in 1993. Of those 636 had induced abortion by suction evacuation, 11 aborted spontaneously, three were not pregnant, two were refused termination of pregnancy and 34 women withdrew their request. Of those who had the operation, 633 (92.3%) had samples taken and 48 were Chlamydia trachomatis positive (7.6%). The reduction from the previous study was significant where 13.5% of the women were Chlamydia positive. The Chlamydia positive women were also younger and more often single than those who were negative. It has been shown that if Chlamydia positive women are treated the incidence of later endometritis and salpingitis is not higher than among those that are negative. This emphasizes the importance of screening and treating Chlamydia positive women requesting termination of pregnancy.

Introduction

Postoperative pelvic infection is a serious complication of induced abortion, and may follow the termination procedure in 2-6% of cases (1,2). The risk is increased if C. trachomatis is present in the cervical canal before the abortion. These infections can lead to infertility later on.

At the National Hospital, samples have been taken for C. trachomatis from all women requesting termination of pregnancy since 1982. A previous study done at the hospital in the years 1982-84 showed that 13.5% of women seeking termination of pregnancy had cervical Chlamydia when swabs were taken from the endocervical canal and cultured. Most of these women were under 25 years of age. Consorts for the last six months were also traced, and positive individuals treated. In that study there were 1754 women screened and of those 218 were positive (13.5%). Mean age of the positive women was 20.8 years compared to 25.5 years for those that were not infected with Chlamydia. Of those infected 86.6% were ≤25 years and 13.4% were ≥26 years and among the consorts who were tested 47% were positive (4).

Now 10 years later a study of the prevalence and distribution by age and marital status of cervical Chlamydia infection in 1991-93 in women seeking termination of pregnancy is in progress. The data for 1993 are presented.

Materials and methods

All case histories of women requesting termination of pregnancy in 1993 at the Department of Obstetrics and Gynecology at the National University Hospital were studied. Information was obtained from the medical and social work records on age, marital status, par-
ity, gestational age and results of diagnostic tests for *C. trachomatis*. These results were checked against the files of the Department of Microbiology.

Samples were taken from the endocervical canal using an ELISA-test (Chlamydiazyme®) for diagnosis. Mucus was cleared from the cervix and the swab rotated in the endocervix. All tests were performed at the Department of Microbiology according to the manufacturers’ recommendations. Chi-squared tests were used to evaluate differences between the present and the earlier study. The hospital ethical committee approved the study.

**Results**

There were 686 women requesting termination of pregnancy in 1993. Of those 636 had induced abortion by suction evacuation, 11 aborted spontaneously, three were not pregnant, two were refused termination of pregnancy and 34 women withdrew their request. Of those who had the operation, 633 (92.3%) had samples taken and 48 were *C. trachomatis* positive (7.6%). The reduction from the previous study was significant ($\chi^2 = 15.2; p = 0.0001$). The mean age of *Chlamydia* positive women was 21.8 years compared to 20.8 years in the previous study. There were 338 women ≤25 years and of those 38 were *Chlamydia* positive, while 285 women were ≤26 years and of those 10 were *Chlamydia* positive ($\chi^2 = 12.1; p = 0.005$). The age distribution of the *Chlamydia* positive women is shown in the table and the figure shows that 77% of *Chlamydia* positive women were ≤25 years. Of the women 200 were married or cohabiting and of those seven were *Chlamydia* positive while 486 were single of whom 41 was *Chlamydia* positive. The proportion of married and cohabiting women was the same in the 1982-84 study (16.4%) as in this study (14.6%).

![Fig. The percentages of age distribution of women with *Chlamydia trachomatis* seeking termination of pregnancy in 1993.](image)

**Discussion**

The aim of this study was to re-evaluate the prevalence of *C. trachomatis* infection among women seeking induced abortion and attempt to assess whether the prevalence of *C. trachomatis* is receding after 10 years of screening and active treatment where tracing of the consorts of positive women was also done.

There was a significant reduction of the incidence of positive *Chlamydia* tests among these women. In the previous period 1982-84, however *Chlamydia* tissue culture was used and the enzyme linked assay used in 1993 is significantly less sensitive. Even if this decline in sensitivity of the test method is taken into account a true reduction in prevalence is likely to have taken place. Routine culture has also been shown to have sensitivity well below 100%. In 1994 a sensitive PCR based method was introduced and the results of testing for *Chlamydia* in this group of women are currently being evaluated.

About the same proportion of women had samples taken as in the previous study (92.3% in 1993 compared to 93.2% in 1982-84). Age distribution and marital status in this study was similar to the previous study and also the distribution of positive and negative *Chlamydia* tests in the older and younger age group. This is similar to the results of other studies (2-3). *C. trachomatis* most commonly infects younger women, even though it can be found in the older age groups. In this study the oldest woman infected with *C. trachomatis* was 41 years.

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<th>Years</th>
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<td>&lt;19</td>
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<td>20-24</td>
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old. Similarly *Chlamydia* was significantly more prevalent among unmarried and single women compared to those in a steady relationship.

Össet & Persson (3) found that if *Chlamydia* positive women were not treated, 37.7% showed signs of infection, but only 6.2% of *Chlamydia* negative women. If *Chlamydia* positive women were treated the incidence of later endometritis and salpingitis was not higher than among those that were negative. This emphasizes the importance of screening and to treating *Chlamydia* positive women requesting termination of pregnancy. Since *C. trachomatis* is statutory notifiable sexually transmitted
disease in Iceland it is also necessary to ensure tracing and treatment of the consorts of infected women.

REFERENCES