An Epidemiological Study of Various Risk Factors For Carcinoma Cervix: A Study From a Tertiary Care Hospital in Gwalior, India

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An Epidemiological Study of Various Risk Factors For Carcinoma Cervix: A Study From a Tertiary Care Hospital in Gwalior, India

Author(s): Singh S, Badaya S

Abstract

Background and Objectives: Worldwide cervical cancer is the fifth most deadly cancer among the women, 80% of which belong to developing countries. Thus it incites us to look into the depth of its various different risk factors and to propose a demanding strategy in its control.

Methods: Study consists of a prospective analysis of a total number of 813 women, those underwent gynaecological examination from May-August, 2010 at the outpatient department (OPD), department of Obstetrics and Gynaecology, JA Groups of Hospitals, Gwalior for cervical pap smears, taken as a part of their routine check-up. Reporting of all the pap smears were done for carcinoma cervix in women of all age groups for a comprehensive data based study through pap smears analyses.

Results: Smears of the women who were suspected for carcinoma on clinical examination were confirmed by the cytopathological investigations and were found to be the cases of SIL (Squamous Intraepithelial Lesion) (90; 11.68%) and carcinoma cervix (4; 0.51%). The compatibility between histology and cytology was 100% in the 3 cases of the 4 cases of frank carcinoma cervix diagnosed on cytology. Study revealed greater age, higher parity, early marriage, poor educational status, rural habitation, sexually transmitted infections (mainly HPV; Human Papilloma Virus), clinical lesions of the cervix and ethnic groups variation as the predominant factors in the path of cervical carcinogenesis.

Interpretations: Thus there is an urgent need for the initiation of community screening and educational programs through awareness campaigns along with the proposed suggestion for clinically down staging the disease by early stage detection.

Introduction

Worldwide cervical cancer being the fifth most deadly cancer among the women, 80% of which belonging to developing countries (World Health Organization, 2006). Despite of the known pre-invasive Papanicolau (Pap) test and formulation and implementation of the cervical screening programs, cervical cancer had remained a major health concern especially in the developing world. Being the most important cancer in Indian women over the past two decades, India accounts for the one-fifth of world cervical cancer burden affecting about 16 per 100,000 women per year (GLOBOCAN, 2002). Whilst all aspects in consideration, it is the lower socioeconomic status women which are more frequently involved, mostly in their middle age (40-55 years), probably for the failure to carry out regular health check-ups due to financial inadequacy.

Data from population-based cancer registries of different regions indicates a slow but steady decline in the age adjusted incidence rate for cervical cancer varying from 19 to 44/100 000 women in various cancer registries in India. Since over 70% of Indian population resides in rural areas, cancer cervix constitutes number one cancer in the rural population with absolute number of cases on increment due to population growth. In urban areas, cancer cervix accounts for over 40% of cancers while in rural areas it account for 65% of the cancers as per the information from the cancer registry in Barshi. In developed countries like United States, endometrial carcinoma has taken over the place due to extensive and successful screening by the Pap test screening (Canavan, Doshi, 2000). Squamous cell carcinoma constitutes 70% of all cervical cancers in comparison to primary adenocarcinoma that holds 10-20% of the sin.

Epidemiological studies had demonstrated the association of several other risk factors concurrent with the major factor; HPV (Human Papilloma Virus), associated with the development of cervical cancer. The risk factors include sexual promiscuity and multiplicity of sexual partner, exposure to sexual intercourse at an early age, number of pregnancies, cigarette smoking, use of oral contraceptives, dietary and other factors (Cuzick, Singer, Destovola, Chomet, 1990, Potischman et al, 1991). One of the studies conducted in Uganda shows an increase risk of cervical cancer with multiple and concurrent infections, thus addressing the hypothesis that chronic cervico-vaginal infection may increase the risk of HPV
leading to cancer of the cervix.

In developed countries, initiation and sustenance of cervical screening programs involving screening of sexually active women annually or once in every 2-5 years have resulted in large decline in cervical cancer incidence and mortality over the last 40-50 years but the total burden of cancer is rising in developing countries, mostly due to increasing populations and unsoundness of women towards the risk factors. Considering it as a very alarming rate, National Health managers are trying to tackle this menace by organizing cytological screening programs through regional cancer centres which are set up throughout the country. Thus this lack of data regarding the disease especially from our study area derives authors to carry out this pilot study, throwing some limelight on the actual picture of the disease; its risk factors and to propose a strategy to undertake it.

Material and methods

A total of 813 women had been registered during the cytological evaluation of cervical smears carried out for women attending the Obstetrics and Gynaecological OPD at JA Groups of Hospital, Gwalior from May till Aug 2010. The findings of history and clinical examination were recorded on pretested proforma. Pap smears of the patients were collected and cytological diagnosis were confirmed by the pathologist by examining the pap smears. The data was analyzed by calculating percentages and chi test. All the smears received in the period mentioned above were included in the study. Oral questionnaire was conducted for the patients undergoing Pap smear screening after their informed consent. Ethical consideration was taken from IEC (Institutional ethical committee) before the advent of the study.

General examination:
The different clinical lesions were defined as follows:

a) Erosion cervix: On examination there is a bright red area surrounding and extending beyond the external Os on the ectocervix, with a clearly demarcated outer edge.

b) Hypertrophied cervix: The size of cervix is enlarged.

c) Suspicious and Unhealthy cervix: If abnormal growth, ulcer or vasculature is present, the cervix is clinically diagnosed as unhealthy.

Specimen collection and handling:
In all women prior to bimanual examination, samples were collected from the squamocolumnar junction of the cervix using Ayer’s spatula or an endocervical brush by the trained gynaecologists. Smears were then fixed by absolute alcohol and subsequently air-dried, packed in boxes and transported to Department of Cytopathology, GR Medical College, Gwalior. Smears were stained in the department according to Papanicalaou technique.

Reporting:
Stained smears were analyzed by the cytopathologist. The cytopathological changes in the cervical smears were graded according to the WHO classification after which grading was done according to the Bethesda system of reporting cervical cytology (WHO, 1973, Bethesda, 1988). Three STIs namely Trichomonas vaginalis, Candida albicans and HPV were also included in the cytological reporting. Although, T. vaginalis and C. albicans were reported on the individual presence of the pathogen in the smear, the viral STIs-like HPV was diagnosed on the basis of cytomorphological changes produced by it in the squamous cells, namely the koilocytosis in the HPV infection (Condyloma).

Quality control in cytopathology:
a) Correlations of cytological findings with histological and clinical findings were done in all the cases of moderate, severe and frank carcinoma cases.
b) Rescreening was done in all those cases in which cytological and histological or clinical findings don’t correlate.
c) At the time of screening records of prior histological and cytological findings were reviewed for each patient.
d) Records were maintained to allow data retrieval for statistical evaluation.
e) Reports are retained in readily accessible area for at least 3 years and cases exhibiting major abnormalities are kept on file as long as the patient is alive, but not less than 5 years.

Results

Specimen type: Conventional smear
Adequacy of the specimen:
Satisfactory for evaluation: 770(94.71%)

General Categorization:
A) Negative for intraepithelial lesion or malignancy:
Organisms: 377(48.96%)
a) Trichomonas vaginalis: 4(0.51%)  
b) Fungal organism morphologically consistent with candida spp: 14(1.81%)  
c) Shift in flora suggestive of bacterial vaginosis: 359(46.62%)  
Other non neoplastic findings: 298(38.70%)  
a) Reactive cellular changes associated with inflammation: 291(37.79%)  
b) Atrophy: 7(0.90%)  

B) Epithelial cell abnormality: 95(12.33%)  
Squamous cell  
a) Atypical squamous cell of undetermined significance (ASC-US): 1(0.12%)  
b) Low –grade squamous intra epithelial lesion (LSIL): 71(9.22%)  
c) High-grade squamous intraepithelial lesion (HSIL): 19(2.46%)  
d) Squamous cell carcinoma: 4(0.51%)  

Cervical biopsy had been performed in 5 out of 13 cases of moderate dysplasia (38.46%) and 3 out of 6 cases of severe dysplasia (50%) the remaining 8 of the former and 3 of the later cases did not return for the biopsy. The histopathology report in the 5 and 3 biopsied cases showed moderate and severe dysplasia in only 20% (1) and 33.33% (1) cases respectively. The discrepancy in the diagnosis between the two procedures was thus 80% (4/5) and 66.66% (2/3) respectively and may be due to not using colposcopy guided biopsy in the process. However, cervical biopsy could be performed in only 3 of the 4 cases of frank carcinoma cervix diagnosed on cytology. The compatibility between histology and cytology was 100% in these 3 cases. Results in accord with the different risk factors can be visualized from Table I.

A progressive rise was seen in the frequency of cytopathological abnormalities with increasing age which was statistically significant (P=0.000001) and maximum frequency was observed in older women i.e. beyond 50 years of age (SIL 35.71%, Carcinoma cervix 3.57%) [table I]. Odds of having SIL was almost 4 times higher in women above 40 years age group or 3.85 (CI 95%, 2.39-6.21, P=0.000) to the women under 40 years age group. It was observed that frequency for SIL (16.30%) and carcinoma cervix (0.94%) were maximum in women married within the age of ≤15 years [table I] and women in the group of carcinoma cervix ranged between 41 - 60 years of age. The odds ratio for women who married before 18 years of legal marriage age in India was 1.77 [CI 95%, 1.06-2.99, P=0.02] to the women who married at or after 18 years. Other factors that are associated with cancer of cervix are low educational status, lack of knowledge about screening, high parity and presence of other sexually transmitted infections like HPV. The relationship between the frequency of SIL and carcinoma cervix with educational status increasing parity and STIs is shown in table I. Odds of finding SIL was almost 2 times in women having no schooling OR 1.88 (CI 95%, 1.17-3.01) to that having any level of schooling. There was a progressive decline in the frequency of SIL with increasing educational standard which was statistically significant (P=0.026). There was a progressive rise in frequency of SIL with increasing parity which was statistically significant (P=0.002) and the chances of having SIL double in women having parity more than 3 OR 2.36 (CI 95%, 1.43-3.95) to the women having parity ≤3. Candidal infection was found to be the most prevalent STIs in the population screened (1.81%). T. vaginalis association with SIL (55.55%) was found to be highest among parasitic infestations while among viral STIs, HPV was seen in 0.90% of the cases. HPV highly associated with SIL (28.57%). The odds ratio for women having HPV and T. Vaginalis was OR 3.84 (CI 95%, 0.48-24.77) and OR 9.94 (CI 95%, 2.26-45.04) respectively. The frequency of SIL and carcinoma cervix were compared between 552 women who had shown cervical lesions on clinical examination and the remaining 218 who presented a healthy cervix as seen from [table I]. The frequency of both SIL and carcinoma cervix were very high and association was found to be statistically significant (P=0.004) with an odds ratio of 2.55 (CI 95%, 1.34-4.94) in women with clinical lesions of cervix. Thus it was amply clear that clinical lesions of the cervix harbor a large number of SIL cases (13.94%).

Discussion

This is the first study regarding women perspective of cervical cancer screening from the Gwalior division of Madhya Pradesh state focussing on the issues leading women on verge of bearing the curse of cervical
cancer ever in life. Study look in risk group among women pertaining to carcinoma cervix and policy frame work in regard of recruiting women to overcome the dearth of screening as screening still the best modality to counteract the cervical cancer (URL 1).

There has been a regular campaign against cervical cancer for last 30 years in India, but this had a little impact on the morbidity and mortality from the disease, with India ranking fourth worldwide. Cancer cervix is one of the few preventable cancers since it has a clear pre-cancerous stage. Studies from Tony Miller and others have shown that one smear done between the age of 35 and 45 will reduce the mortality level by two-thirds. If repeated again after five years it will reduce the mortality rate by more than 90 per cent. This reflects the utmost importance of screening (URL 2) screening has been shown to be effective in reducing the incidence and mortality from cervical cancer in the developed countries as carcinoma in situ can be detected several years before it progresses to invasive cancer by screening despite of all that, it is still a major public health problem Owing to our inability to topple down the burden of disease in developing countries like India and root cause is failure to overcome the risk factors leading to generation of data as depicted below.

Overall the frequency of SIL in our study was found to be 11.68%. Reproductive age group (15-44 years) contributes (79.35 %) of the women attending OPD with frequency of SIL to be (54.44%). Illiteracy rate among the women were (45.06%) with frequency of SIL and carcinoma cervix to be (54.44%) and (75%) respectively. It was evident from the study that the frequency of cervical dysplasia showed a progressive rise with increasing age. It is likely to be due to decrease in the regenerative capacity of the cervix, as well due to physiological and pathological wear and tear (infections due to decrease in immune status).

The frequency of SIL and carcinoma cervix was found to be (16.72%) and (0.96%) respectively in women married at or less than 15 years of age. Some epidemiologists have propagated the risk of cervical cancer with sexual behaviour showing increased risk with younger age marriage as an example of regular sex at an early age of <20yrs (Karlsson et al, 1995). Our findings confirmed the association between early age at marriage and cervical cancer in women and defined the role of these risk factors in cervical carcinogenesis among rural Indian women. Interestingly enough, the percentage of dysplastic smears was found to be very high in women who were married below 15 years of age. Multiparity has been consistently shown to increase the risk of SIL (squamous intra-epithelial lesion) and cervical cancer (Gopalkrishna, 1995, Schneider, Hotz, Gissmann, 1987, Lawson, Henson, Bobo, Kaeser, 2000) Thus high parity coupled with increasing age appears to play a significant role in the progression of SIL.

Easily accessing health care facilities by rural comprising 70% of the Indian populations is a major hitch towards toppling the disease burden and figuring a high disease load in the country reflected by data regarding cervical abnormality being leaded by the rural the proposed reason for this is that women from these areas are withholding more difficulties in accessing health care facilities due to long travel and due monetary damages incurred with the loss of wages. This leads to women presenting to physician in the late stages of disease (Palacio-Mejía, Rangel-Gómez, Hernández-Avila, Lazcano-Ponce, 2003).

Tobacco use in form of chewing to smoking is deep seated in veins of Indian population being depicted by the data comprising 98(12.72%) users nearly four times more prone to have cervical abnormality then non smokers which is in accord to study conducted by Rajkumar et al, reported an association between chewing habit and cervical cancer in Southern India, where paan is chiefly composed of betel leaves, areca nut, and tobacco (Rajkumar et al, 2003). Some case control studies and a cohort investigation have demonstrated increased risk of cervical cancer and SIL among smokers even after controlling for most other risk factors (Clifford, 2005).

Majority of women using OCPs were found positive for SIL (23.25%). Recent research is showing that long-term users of oral contraceptives are at higher risk for cervical cancer even after adjusting for sexual and social factors. Some studies found an elevated risk among HPV positive women who used oral contraceptives (Miller, 2004, Brinton, 1991). It is presumed that oral contraceptives promote the activity of HPV infection.

Low and low upper socioeconomic class comprising 568 (73.76%) subjects were governing class in the study population. Krieger et al. found that incidence of cervical cancer is inversely related to socioeconomic status among various racial/ethnic groups. In this study, poor and working-class Caucasian women had a cervical cancer incidence that was four times higher than in professional women of the same race (Krieger, 1999). Liu et al. also reported socioeconomic status to be inversely associated with cervical cancer incidence (Liu, Deapen, Bernstein, 1998). Access to quality healthcare service is often compromised among minority, rural, and other underserved populations.
These populations have barriers to well-organized, quality Pap smear screening services, and often present with the late-stage disease (Baker, Hoel, Mohr, Lipsitz, Lackland, 2000).

Muslims females were least prone in contracting disease among all the three ethnic groups comprising 8.92% and 0% of SIL and carcinoma cervix respectively supported by researchers claiming role of male circumcision can be the true protective factor that reduces the sexual transmission of possibly HPV (Patterson et al, 2002). Further our study clearly emphasized the importance of clinically down staging the cervical cancer, as the frequency of both SIL and carcinoma cervix was found to be very high (13.94% and 0.72%, respectively) and the association was statistically significant (p<0.05) in women showing clinical lesions in the cervix than in women with a healthy cervix (5.96% and 0% respectively) and if such women are subjected to mandatory cytological evaluation the burden of carcinoma cervix can be reduced significantly. Previous studies have also emphasized on this context, however data from some other poor countries like Africa differ.

With the continuing newer advancements in the screening technique (like HPV and VIA screening) (Sankaranarayanan et al, 2009, Menon, 2011) an early diagnosis and thus reduction of burden of disease in developing countries like India could be a step towards elimination of disease if policies are being developed to recruit the women for screening leading to early diagnosis which could only be achieved by initiation of community screening and educational programs through awareness campaigns in a need to sensitize women to undergo cervical screening at regular intervals for the control and prevention of Cervical Cancer in India. Screening programs in every five years in several countries have been able to reduce the incidence and mortality from cervical cancer by 60% as observed by Hakama et al (Hakama, Miller, Day, 1986, Shepherd, Peersman, Weston, Napuli, 2000). Lesson should be learnt from the success of cervical cancer screening programs in North America and Western Europe where cervical cytology screening has been centralized. Although this may not be possible in the villages of India where 58% of females are illiterate, health infrastructure is mediocre and cervical cytology is unknown (Gajalakshmi, Krishnamurthi, Ananth, Shanta, 1996) but we can be hopeful from the moderate success achieved in some parts of western India in reducing case fatality of cervical cancer through improved health awareness. In contrast, cervical cancer remains largely uncontrolled in high risk developing countries because of ineffective or no screening.

It is of utmost surprise and importance that most of the final year students did not feel confident enough to perform a pap smear (Mutyaba, Mmiro, Weiderpass, 2006). Thus it clearly guides us to target both society as well as medical personnel too who apparently are believed to be involved in its awareness, prevention and cure.

Conclusion

Overall the frequency of SIL in our study was found to be 11.68%. Cytological screening has been shown to be effective in reducing the incidence and mortality from cervical cancer in the developed countries. Despite that, it is still a major public health concern in developing countries. Cervical cancer is a favourable site for an effective control program with its ease to access and a long latent period of intraepithelial neoplasia which is easily recognizable by the Pap smear. Thus there is an urgent need for initiation of community screening and educational programs through awareness campaigns. This is an alarming as well as appropriate time to be on the toe as our higher SIL value clues for the increase in future cancer load on health infrastructure.

Limitation

* Of this study is that the outcome is based on cytology.
* This is a hospital based study so the result may not be generalized to other areas.

Acknowledgement

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References

2. Bethesda system (the NCI terminology and


URL 2: http://blogs.thehindu.com/delhi/?p=23315
Illustrations

Illustration 1

Table 1

<table>
<thead>
<tr>
<th>Variables</th>
<th>Distribution within sample</th>
<th>SIL</th>
<th>Carcinoma cervix</th>
<th>P Value</th>
<th>ODDS RATIO</th>
<th>CI 95%</th>
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<tr>
<td><strong>Age group (years)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤20</td>
<td>17</td>
<td>1 (5.88%)</td>
<td>_</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td>295</td>
<td>21 (7.11%)</td>
<td>_</td>
<td>1</td>
<td>0.81</td>
<td>0.03-6.36</td>
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<td>31-40</td>
<td>273</td>
<td>23 (8.42%)</td>
<td>_</td>
<td>1</td>
<td>0.67</td>
<td>0.03-5.26</td>
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<tr>
<td>&gt;40</td>
<td>185</td>
<td>45 (24.32%)</td>
<td>4 (2.16%)</td>
<td>0.12</td>
<td>0.19</td>
<td>0.009-1.46</td>
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<td><strong>Parity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Nulliparous and Para 1</td>
<td>153</td>
<td>5 (3.26%)</td>
<td>_</td>
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<tr>
<td>Para 2</td>
<td>207</td>
<td>21 (10.14%)</td>
<td>3 (1.44%)</td>
<td>0.01</td>
<td>0.29</td>
<td>0.09-0.86</td>
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<td>Para 3 and above</td>
<td>410</td>
<td>64 (15.60%)</td>
<td>1 (0.24%)</td>
<td>0.000</td>
<td>0.18</td>
<td>0.60-0.48</td>
</tr>
<tr>
<td>Age at marriage (years)</td>
<td></td>
<td></td>
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<td>-------------------------</td>
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<td></td>
</tr>
<tr>
<td>≤15</td>
<td>319</td>
<td>52(16.30%)</td>
<td>3(.94%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-20</td>
<td>353</td>
<td>27(7.64%)</td>
<td>1(.28%)</td>
<td>0.001</td>
<td>2.35</td>
<td>1.40-3.96</td>
</tr>
<tr>
<td>&gt;20</td>
<td>98</td>
<td>11(11.22%)</td>
<td>_</td>
<td>0.26</td>
<td>1.54</td>
<td>0.73-3.28</td>
</tr>
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<thead>
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<th>Education</th>
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<tbody>
<tr>
<td>No schooling</td>
<td>347</td>
<td>53(15.27%)</td>
<td>3(.86%)</td>
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<tr>
<td>Primary school</td>
<td>72</td>
<td>9(12.50%)</td>
<td>_</td>
<td>0.71</td>
<td>1.26</td>
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<tr>
<td>High school and Above</td>
<td>351</td>
<td>28(7.97%)</td>
<td>1(0.28%)</td>
<td>0.003</td>
<td>2.08</td>
</tr>
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<table>
<thead>
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<th>Residence</th>
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<tbody>
<tr>
<td>Rural</td>
<td>452</td>
<td>63(13.93%)</td>
<td>4(.88%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>318</td>
<td>27(8.49%)</td>
<td>_</td>
<td>0.02</td>
<td>1.74</td>
</tr>
<tr>
<td>Oral contraception</td>
<td>43</td>
<td>10(23.25%)</td>
<td>_</td>
<td>0.02</td>
<td>2.45</td>
</tr>
<tr>
<td>Cu T alone</td>
<td>11</td>
<td>2(18.18%)</td>
<td>_</td>
<td>0.37</td>
<td>1.69</td>
</tr>
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</table>
### Chewing tobacco

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th>Prevalence (%)</th>
<th>Odds Ratio</th>
<th>95% CI</th>
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<tbody>
<tr>
<td>Smoking</td>
<td>6</td>
<td>2(33.33%)</td>
<td>1 (16.66%)</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.84</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.48-24.77</td>
</tr>
<tr>
<td>T. vaginalis</td>
<td>5</td>
<td>5 (55.55%)</td>
<td>_</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.94</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.26-45.04</td>
</tr>
<tr>
<td>C. albicans</td>
<td>14</td>
<td>_</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>HPV</td>
<td>2</td>
<td>2 (33.33%)</td>
<td>_</td>
<td>0.14</td>
</tr>
<tr>
<td>clinical lesion of cervix</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Women with Cervical lesion</td>
<td>552</td>
<td>_</td>
<td>4 (0.72%)</td>
<td></td>
</tr>
<tr>
<td>Women with Healthy cervix</td>
<td>218</td>
<td>_</td>
<td>0.002</td>
<td></td>
</tr>
</tbody>
</table>

**Odds Ratio Calculations:**

- **Chewing tobacco:** 0.02
- **Smoking:** 3.84
- **T. vaginalis:** 9.94
- **C. albicans:** Not applicable
- **HPV:** 3.84
<table>
<thead>
<tr>
<th>Socio-economic class</th>
<th>Hindu</th>
<th>Muslim</th>
<th>Sikh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low and low upper</td>
<td>705 (11.91%)</td>
<td>56 (8.92%)</td>
<td>9 (11.11%)</td>
</tr>
<tr>
<td>Upper-upper middle</td>
<td>202 (6.43%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>705</td>
<td>56</td>
<td>9</td>
</tr>
<tr>
<td>Muslim</td>
<td>56</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Sikh</td>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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