surveillance of NTS is necessary to portray the ongoing pattern of disease transmission, properties of various serotypes and their antibiotic sensitivity pattern.5

References


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Study of Human Immunodeficiency Virus and HCV Infections in Intravenous Drug Users in Mumbai

Dear Editor,

Drug abuse and human immunodeficiency virus (HIV) acquired immunodeficiency syndrome (AIDS) are global public health problems. Intravenous drug use accounts for about one-third of all AIDS cases and one-half of hepatitis C cases.1 It is the major mode of transmission of HIV, apart from high-risk sexual behavior, sharing of needles and other equipment.2 Past few years have seen emerging recognition of hepatitis C viral infection amongst intravenous drug users (IDUs). Co-infected patients are more likely to progress to chronic liver disease and cirrhosis over a shorter period of time.

This study was carried out from July 2004 to September 2004 at the Department of Microbiology, T. N. Medical College (TNMC) and BYL Nair Children Hospital, Mumbai. The target group comprised of persons who had been taking drugs intravenously for the last three months, and they were identified by a drug de-addiction center. Two hundred fifty blood samples were collected by outreach strategy and subjected to HIV-antibody testing and HCV-antibody testing. Testing was unlinked and anonymous, as per Strategy II, CDC guidelines.

Out of 250 IDUs, 74 (30%) tested positive for antibodies to HIV 1, and 153 (61.2%) were positive for antibodies to HCV (Table). Out of 74 HIV-positive IDUs, 68 (91.06%) were co-infected with HCV. Only HIV 1 was detected. The target population was urban in locale. The lowest age of entry to intravenous drug use was 13 years, oldest being 49 years. One hundred twenty-seven (51%) of the IDUs were in the age group of 20-29 years, and 243 (97.2%) were males. All the 74 HIV-positive IDUs and 68 co-infected IDUs were males. Migrants (70.8%) were in majority, while 52% were illiterate and 82.4% were unskilled workers.

In our the study, prevalence of HIV infection amongst intravenous drug users was 30%, which is similar to previous reports.1,2 Only HIV 1 infection was detected, although there have been reports of HIV 2 infection among IDUs.2 Prevalence of HCV infection was 61.2%, which is lower in comparison to a previous study.3 There was a higher prevalence of HCV infection (61.2%) as compared to HIV infection (30%), which is consistent with a previous study.3

A large number (92%) of HIV-positive IDUs were also HCV-positive. Studies outside India also report such findings.4 Most studies suggest that HIV-positive persons with HCV infection are more likely to progress to chronic liver disease and cirrhosis than HIV-negative persons with HCV infections and may do so more rapidly. Our findings have treatment implications, as antiretroviral therapy may be problematic because of hepatotoxicity.

<table>
<thead>
<tr>
<th>Table: Human immunodeficiency virus and HCV infection in intravenous drug users</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCV positive</td>
</tr>
<tr>
<td>HIV positive</td>
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<tr>
<td>HIV negative</td>
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<tr>
<td>Total</td>
</tr>
</tbody>
</table>

P value <0.0001, χ² = 41.699, Odds ratio = 12.133, Df = 1, Odds ratio = 12.133
References


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An Epidemiological Study of Vulvovaginal Candidiasis in Women of Childbearing Age

Dear Editor,

Vulvovaginal candidiasis (VVC) is an extremely common infection in women of childbearing age of all strata of society. Since it has now been excluded from the ranks of sexually transmitted diseases and is also not a notifiable disease,1 not much information regarding its incidence and epidemiology is available.

We studied 350 women of 16-45 years of age, with the complaints of vaginal discharge and/or vaginal itching. After recording their relevant personal and reproductive history, vaginal secretions were collected and subjected to direct microscopy and culture on Sabouraud dextrose agar (SDA) medium. Candida species were identified by a series of morphological and biochemical tests.2 Statistical analysis was done by using Chi-square test.

Positive culture for Candida species was obtained in 82 (23.4%) women. Of these, 61 (74.4%) were Candida albicans and 21 (25.6%) were non C. albicans. C. glabrata was the most common nonalbicans species (9, 11%) followed by C. tropicalis (5, 6%), C. krusei (3, 3.6%) and C. parapsilosis and C. guilliermondii (2, 2.43%) each.

We observed a consistent increase in the incidence of VVC from second to fourth decade of life followed by a decline (Table). This could be because of the influence of sexual activity, which is at its peak during this age. In our study, women of low socioeconomic status, unsatisfactory genital hygiene and those who were using tight, poorly ventilated, nylon underclothing showed significantly higher incidence of VVC than those of middle class (P<0.0001), those who had satisfactory genital hygiene (P=0.0008) and those who were using well-ventilated, cotton undergarments (P<0.0001).

The use of tight fitting, synthetic/nylon clothing could be contributing to VVC by increasing perineal moisture and temperature.

In the present study, statistically highly significant difference in incidence of VVC was observed between pregnant and nonpregnant women (P<0.0001) and in women of parity up to two and more than two (P<0.0001). VVC is commoner and more difficult to eradicate during pregnancy.1,3 This is probably due to high level of reproductive hormones during pregnancy which provides an excellent carbon source for growth of Candida. High incidence of VVC observed in patients on oral contraceptives, is similar to the findings of other investigators.1,3 Significant influence of use of antibiotics in increasing the incidence of VVC was observed in the present study. Antibiotics are known to destroy the normal protective vaginal flora and help in colonization with Candida.

To conclude, VVC caused by C. albicans as well as nonalbicans species of Candida is quite prevalent in women of childbearing age of our region. Its significant association with certain epidemiological factors underscores the need for educating women regarding genital hygiene, use of wellventilated cotton underclothing and importance of accurate diagnosis and prompt treatment. There is also need for constant surveillance studies so that the incidence of infections caused by nonalbicans species of Candida could be kept under check.

References