HIV and HbsAg seroprevalence in commercial sex workers in Raipur (Chhattisgarh) area

Sir,

Heterosexual intercourse is the dominant mode of HIV transmission in most parts of the world. Commercial sex workers (CSWs) are associated with high incidence of STDs. HIV seroprevalence in CSWs in Mumbai had crossed 69% in 1995.\(^1\) HIV and hepatitis B virus (HBV) share a common mode of transmission i.e. sexual, parenteral and perinatal. In India, about 4.7% of adult population was found to be infected with HBV. In STD clinic attendees in Mumbai, prevalence rate was 8.8%\(^2\) while in Tirupati, HbsAg seroprevalence in female CSWs was 24% and in STD patients it was 13.6%\(^3\).

Sixty CSWs working around Raipur were counseled by a medical officer and investigated for the presence of HIV, HbsAg and VDRL test. Surface antigen for hepatitis B (HbsAg) was determined by latex agglutination method while antibodies to HIV were detected by dot immuno-assay for the detection of antibodies to HIV 1 and 2.

The age of the CSWs ranged from 19 – 44 years (mean 29.75 ± 6.71 years). About 88% of CSWs preferred to work during 8 pm-12 pm while 12% were working during the day. The average duration of sexual exposure was 5.86 ± 2.32 years. Fourteen (23.3%) CSW’s showed positive VDRL test while the seroprevalence of HIV and HbsAg was 5% and 8.33% respectively (Table 1).

In 1988, the seroprevalence of HIV amongst CSWs was so low that only one HIV seropositive CSW was found out of 701 CSWs examined\(^4\) but now it is well documented from all parts of the world that CSWs have a very high incidence of HIV and HBV infection. Thus they are a major reservoir and source of transmission. The prevalence rate of 5% of HIV positivity at Raipur is quite high. This may be because the major business connection of Raipur is Mumbai. Again, this indicates that a large scale epidemic is now looming around in this region and this requires urgent educational measures to be taken for all including the CSWs.

Table 1: Positive VDRL, HIV and HbsAg tests in CSW’s

<table>
<thead>
<tr>
<th>Test</th>
<th>No. of CSW’s</th>
<th>Positive test reports</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>VDRL</td>
<td>60</td>
<td>14</td>
<td>23.3</td>
</tr>
<tr>
<td>HIV</td>
<td>60</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>HbsAg</td>
<td>60</td>
<td>5</td>
<td>8.33</td>
</tr>
</tbody>
</table>

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Bullous Scabies in a patient on anticancer therapy

Sir,

Scabies is highly contagious and intensely pruritic skin infestation caused by mite *Sarcoptes scabiei var hominis*. Bullous scabies is a rare manifestation of scabies which is occasionally seen in the immunosuppressed.[1] We report a case of bullous scabies in an immunosuppressed 30 year old lady on anticancer therapy.

CASE REPORT

A 30 year old female patient, who was taking methotrexate, cyclophosphamide, and actinomycin D for gestational trophoblastic disease (choriocarcinoma) since 3 months, was referred for highly pruritic, vesiculobullous lesions which were present since 8 days. Itching was more severe during nights. On examination, excoriated papules and vesicles with clear fluid filled tense bullae (1-1.5 cm) were present over dorsa of feet, ventral surface of right forearm, finger webs, chest, abdomen and thighs (Figure 1). Closer examination revealed burrows over finger webs. Direct microscopy of scraping from the burrow revealed eggs of *S. scabiei* mite. Hemogram was normal. Bulla fluid on culture was sterile. Histopathology showed subepidermal bullae with cavity containing predominantly neutrophils and some eosinophils. The patient was treated with topical 5% permethrin. Resolution of the lesions was noted after 4 weeks.

DISCUSSION

Though the vesicular lesions are common in infants and children, bullous lesions are uncommon in scabies. Bullous scabies is seen in immunocompetent infants, young children and elderly although some reports have shown its occurrence in immunosuppressed adults.[3] In communities where scabies is not endemic, the index of suspicion is low and bullous scabies can be confused with bullous pemphigoid, insect bites, linear IgA dermatosis, epidermolysis bullosa or chronic bullous disease of childhood (CBDC). Bullous lesions over scabies prone sites, nocturnal itching and detection of mite eggs in burrow scraping finally confirmed scabies in our case. Bullous scabies has on occasions resembled bullous pemphigoid clinically, light microscopically and immunopathologically.[1,4] Previous case reports suggest that several cases of bullous scabies were misdiagnosed and treated as bullous pemphigoid, due to false positive DIF and IIF in bullous scabies.[4]

Several theories have been proposed to explain pathogenesis of bullae formation in bullous scabies. Veraldi et al.[5] has given the theory of alteration of bullous pemphigoid antigen with mite secretions and the resultant production of antibasement membrane zone antibody formation. Other theories proposed to explain bullae in scabies are superinfection with *Staphylococcus aureus*,[6] toxins producing bullae and id reaction to scabies mite.[7]