

## Low seroprevalence of blood-borne infections among supposedly high-risk police personnel

Dear Editor,

As health care workers, police personnel, who are usually first responders to any casualty, have the potential for occupational exposure to blood, which increases their risk for occupational blood-borne infection.<sup>[1]</sup> A higher prevalence might be seen in this group when compared to the general population because of the following points:

1. They are usually first responders in casualties thereby increasing their exposure rates.
2. There is frequent unexpected change of location among these officers. It is not always convenient or possible for the police officers to move their family with them to their new locations. This frequent transfer encourages police officers toward extramarital affairs and multiple sexual partners.
3. Police work has been identified as one of the most stressful professions. Love making, especially through extra-marital relations, may be one of the coping mechanisms.
4. The shifting nature of police work causes discontent in their family life, which further encourages the extramarital relations.<sup>[2]</sup>

To address this concern, the authors conducted a literature review of occupational blood exposures and the seroprevalence of blood-borne pathogens among this group. An MEDLINE search was conducted, and all identified articles that described surveys of exposures to blood or surveillance of blood-borne infections among police personnel were included. To the best of our knowledge and belief, there is no such data available from India.

A total of 200 police officers posted in the Jhalawar district, Rajasthan, India were included in the study. Five milliliter of blood was collected aseptically from each officer following all universal precautions. Prior to the study written informed consent was obtained. All samples were screened for hepatitis B surface antigen (HBsAg ERBA LISA hepatitis B), anti HIV antibodies (HIV third generation kit, ERBA LISA HIV 1+2), anti-hepatitis C virus (HCV) antibodies (ERBA LISA hepatitis C) and rapid plasma regain reactivity (Carbogen kit, Tulip diagnostics).

The seroprevalence of syphilis and HbsAg was 0.5% each that is, only one officer tested positive for hepatitis B and syphilis each. The seroprevalence of HIV and HCV was nil. In a similar study conducted in Tanzania, considerably higher seroprevalence rates were recorded

for HIV and syphilis.<sup>[3]</sup> Another study conducted among the urban public safety workers in Detroit, USA revealed the HCV seroprevalence to be 0.6%.<sup>[4]</sup> A recent hospital-based study conducted in Rajasthan, India has revealed the seroprevalence rates of HbsAg, HCV and HIV to be 0.87%, 0.28% and 0.35% among the general population, which is again higher than what is found in our study group.<sup>[5]</sup>

Despite the expected occupational stress and risk associated, it appears that our concept of presuming a higher incidence among this study group does not hold ground. The police personnel do not have an elevated seroprevalence of blood-borne viruses (BBVs) and syphilis when compared with the general population. There are very limited numbers of studies addressing this issue, and these studies have numerous limitations. Although the seroprevalence rates as found in our study is quite low, yet regular monitoring of information on high-risk behaviors and prevalence in this group is still strongly recommended. Public health policy must involve all sections of the community, including police personnel if we are to reduce transmission of HIV and other BBVs.

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