



**Figure 1** Showing penile horn.

$38 \times 10^6/l$  and lipid profile was within normal limits. Histopathological examination showed an acanthotic epidermis with craters filled with eosinophilic hyaline intracytoplasmic inclusion bodies, which are the hallmarks of molluscum contagiosum. After doing other baseline investigations the patient was started on HAART (stavudine + lamivudine + nevirapine) and was also started on prophylactic drugs for *Pneumocystis carinii* pneumonia and *Mycobacterium avium* complex infection in the recommended dosages. The molluscum lesions were treated with electrocauterization.

### Comment

Cutaneous horn (cornu cutaneum) is a clinical entity used for protruding dense, white or yellowish, short or curved hyperkeratotic structure resembling the horn of an animal. This term was proposed for lesions in which the height of the keratotic mass amounts to at least half of its diameter.<sup>1</sup> It is an uncommon lesion which usually occurs over the exposed parts of the skin.<sup>2</sup> It can develop over a wide array of benign, precancerous and malignant lesions.<sup>3</sup> The occurrence of horn over the penis was first reported in 1827.<sup>2</sup> Cutaneous horn of the penis is a rare condition with less than 100 cases reported in the world.<sup>3</sup> The various predisposing factors for the development of penile horn are chronic prepuccial inflammation, phimotic foreskin, trauma, poor hygiene, relapsing balanoposthitis, viral infection, and tumour, especially squamous cell carcinoma.<sup>3</sup> Recently, verrucous carcinoma presenting as penile horn has been reported.<sup>2</sup>

Among the viral infections, human papillomavirus is commonly implicated. Molluscum contagiosum presenting as penile horn even in HIV infection is extremely rare. So far only one case has been reported in the literature.<sup>4</sup> To the best of our knowledge our patient is the second report in the literature.

**Y Manchanda, G Sethuraman, P P S Paderwani, M Singh**

Department of Dermatology and Venereology, All India Institute of Medical Sciences, New Delhi-110029, India

**M K Singh**

Department of Pathology, All India Institute of Medical Sciences of Pathology New Delhi-110029, India

Correspondence to: Dr G Sethuraman, Department of Dermatology and Venereology, All India Institute of Medical Sciences, New Delhi-110029, India; kgsethu@yahoo.com

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### Contraception's proved potential to fight HIV

Mitchell and Stephens<sup>1</sup> bring attention to an issue we believe warrants much more emphasis, contraception for HIV infected women. A World Health Organization meeting identified prevention of unintended pregnancies to HIV infected women as a key strategy in preventing mother to child transmission (MTCT).<sup>2</sup> To date, three different models have shown the potential impact of family planning services on preventing HIV sequelae. Firstly, a simulation model demonstrated that just moderate reductions in unintended pregnancies to HIV infected women would yield equivalent reductions in infant HIV infections as nevirapine for pregnant, HIV infected women.<sup>3</sup> Secondly, another model showed adding family planning to MTCT programmes produced major reductions in infant HIV infections and orphans with this strategy.<sup>4</sup> Finally, a third model found that increasing contraceptive use among non-users of contraception who do not want to get pregnant is at least as cost effective as an equivalent investment in prenatal care programmes that provide and promote nevirapine to HIV infected mothers.<sup>5</sup>

To strengthen the case for contraception, we underscore the contribution family planning programmes are currently making to prevent infant HIV infections. Take sub-Saharan Africa where the HIV epidemic has hit hardest and the impact of contraceptive use in averting HIV positive births is greatest. In 2002, 13% of married African women aged 15–49 used modern methods of family planning: pill 4%, intrauterine device 1%, injection 4%, condom 1%, female sterilisation 2%, and other (for example, implants) 1%.<sup>6</sup> Taking into account contraceptive failure rates,<sup>7</sup> pregnancies averted are calculated by subtracting the number of pregnancies occurring among current users of modern contraceptives and the number that would occur if they used no method; for no method use, a conservative initial annual pregnancy rate of 40% was assumed.<sup>8</sup>

Given the 7.8 million births prevented by contraceptive use in sub-Saharan Africa in 2002 and an HIV prevalence of 7.4%,<sup>9</sup> current contraceptive use in sub-Saharan Africa prevents an estimated 577 200 unplanned births to HIV infected mothers. Assuming a 30% vertical transmission rate in the absence of antiretroviral prophylaxis, we estimate that current contraceptive use prevents over 173 000 unintended HIV infected infants each year in sub-Saharan Africa, or 474 HIV infected infants per day. Current coverage of MTCT programmes would have a minimal effect on this estimated number of infant HIV infections since the weighted coverage of MTCT programmes for Africa is 5%,<sup>10</sup> and less than one sixth of HIV positive women with access to MTCT programmes take antiretrovirals.

Approximately 640 000 children were newly infected with HIV in sub-Saharan Africa during 2003.<sup>9</sup> Without any contraceptive use, this number would be 813 000 children. Thus, current contraceptive use is already averting approximately 22% HIV positive births annually. However, given the relatively low contraceptive prevalence in sub-Saharan Africa, increasing contraceptive use has great potential for additional impact in averting HIV positive births. The proportion of unintended births is 25% in sub-Saharan Africa<sup>11</sup>; and assuming that 25% of HIV positive births are also unintended, the potential for contraception to avert even more HIV infections is profound—an addition of over 160 000 HIV positive births averted annually.

As resources are rapidly shifting to focus on providing antiretroviral therapy for HIV infected people, the negative consequences associated with unintended childbearing are likely to worsen for women if funding for contraception does not keep pace with increasing demand.<sup>12, 13</sup> Across all developing countries, current family planning spending levels are estimated to prevent 187 million unintended pregnancies.<sup>5</sup> In turn, more than 100 million induced abortions are prevented annually and 60 million unplanned births are avoided. We already know that contraceptive use has numerous health benefits for women and families; our calculations suggest that contraceptive use to prevent unintended pregnancies can also have a significant effect on reducing infant HIV infections. We urge funders to refocus on family planning, not only to prevent unintended pregnancies but also HIV infections.

**H W Reynolds, M J Steiner, W Cates Jr**  
Family Health International, USA

Correspondence to: Heidi Reynolds, PhD, MPH, Health Services Research, Family Health International, PO Box 13950, Research Triangle Park, NC 27709, USA; hreynolds@fhi.org

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the study. Another 196 females gave written informed consent. All individuals were asked about potential risk factors of blood borne virus' acquisition in a voluntary interview. Then all were screened for anti-HCV antibody, HBsAg, and anti-HIV antibody.

Their mean age was 29.3 (SE 0.7) years. There was a history of prostitution in 79.0%, non-injecting drug use (IDU) in 15.3% and IDU in 2.0%. A total of six HCV positive cases (3.1%) and three HBsAg positive cases (1.5%) were found. There were no HIV positive cases. HCV prevalence was significantly higher in individuals with history of non-IDU and IDU ( $p = 0.01$  and  $p = 0.005$ , respectively). Out of 149 sex workers, with the mean period of prostitution was 11.3 (SE 1.7) months; four cases (2.7%, 95% CI: 0.7 to 3.4) were HCV positive and one case (0.7%, 95% CI: 0 to 1.7) was HBsAg positive. There was no sexual contact related variable significantly associated with HCV seropositivity in the sex worker population (table 1). Only one of these four cases who were anti-HCV Ab positive had a history of non-IDU, and none of them had a history of IDU.

Although we have been unable to ascertain the source of the HCV positivity in these women with multiple sexual exposures, it seems that promiscuity is not an important risk factor for hepatitis C because of the low HCV prevalence rate in general population in Iran (0.12%),<sup>2</sup> the low rate of promiscuity in Iran because of religion (Islamic) and social culture, the low mean period of prostituting in our study sample, or the regular use of condoms in almost all of the study population. However, it may be also because of the low infectivity of HCV in heterosexual intercourse. Moreover, in our study, none of HCV positive cases in the sex worker population study had a history of IDU while many of the studies failed to carefully exclude HCV acquisition from non-sexual sources.<sup>4-6</sup> However, IDU is a much more significant risk factor for HCV infection than extramarital sexual contact in Iran. Therefore, screening for HCV infection is advocated in injecting drug users in order to prevent the spread of HCV.

**M R Jahani**

Health Headquarters of IRI Police Force, Tehran, Iran

**S-M Alavian**

Tehran Hepatitis Research Center, Tehran, Iran

**H Shirzad**

Health Headquarters of IRI Police Force, Tehran, Iran

**A Kabir, B Hajarizadeh**

Tehran Hepatitis Research Center, Tehran, Iran

Correspondence to: Seyed Moayed Alavian, No 92, Vesal Shirazi Ave, PO Box 14155/4656, Tehran, Iran; manager@iranhepgroup.info, sm\_alavian@yahoo.com

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**Distribution and risk factors of hepatitis B, hepatitis C, and HIV infection in a female population with "illegal social behaviour"**

Parenteral exposure is a well established risk factor for hepatitis C virus (HCV) infection.<sup>1,2</sup> However, the role of the sexual route in the transmission of hepatitis C has remained controversial.<sup>3</sup> There are few studies carried out to evaluate these high risk groups in Iran. We conducted this study to survey the distribution of HCV infection as well as HBV and HIV infection in a female population with "illegal social behaviour."

We surveyed 196 females arrested by the police force in an analytical cross sectional study during the summer of 2002. They were mostly suspected of drug addiction, drug dealing, prostitution, and vagrancy. It was emphatically stated that there would be no additional penalty if anyone among the study population was not cooperative. Ten cases out of 206 females who had been initially selected for the study refused to partake in

**Collecting the essence of man: semen collection for HIV transmission studies in sub-Saharan Africa**

Efforts to understand male to female sexual transmission of HIV must include semen analysis. Estimating sexual infectiousness using blood HIV RNA concentrations as a surrogate marker may be biased.<sup>1</sup> Semen is routinely collected in Europe and the United States for HIV research<sup>2</sup> and has recently been collected in clinical trials in sub-Saharan Africa<sup>3</sup>; however, there are no published data about issues associated with semen collection.

We conducted a study at the Central Hospital in Lilongwe, Malawi, from January 2000 to June 2001 to better understand the relation between trichomonas and HIV-1 viral load.<sup>4</sup> Men attending STI and dermatology clinics consented and were enrolled. All men with *Trichomonas vaginalis* and a comparison group of HIV positive men attending the dermatology clinic without trichomonas or STI symptoms were asked to provide semen. Both male and female clinic staff asked men to donate semen at the baseline visit. If subjects agreed to provide semen they were given a wide mouthed specimen container, escorted to a designated toilet near the examination rooms, and asked to provide semen by masturbation. To determine independent predictors of collection, a multivariate logistic regression model was created utilising those factors associated ( $p \leq 0.10$ ) with semen collection on bivariate analyses. Eight randomly selected subjects who had been asked to donate semen were invited to participate in a focus group about semen collection.

In all, 212 men were asked to provide semen and 145 succeeded (table 1). The table shows the adjusted results controlling for factors associated with collection. Having a

**Table 1** Comparison of different factors between HCV positive and HCV negative cases of prostitute groups to determine risk factors associated with HCV infection

	HCV positive (n = 4)	HCV negative (n = 145)	p Value
Age (years)	19.5 (SE 1.5)	28.3 (0.7)	NS
Literacy level			NS
Illiterate or elementary	1 (25.0%)	41 (29.5%)	
Secondary	3 (75.0%)	90 (64.7%)	
Advanced	0	8 (5.8%)	
Homosexuality (yes/no)	2/2 (50.0%)	61/79 (43.6%)	NS
History of STD (yes/no)	0/4 (0%)	22/118 (15.7%)	NS
Average number of weekly partners			NS
One or less	2 (50.0%)	47 (35.1%)	
Two to four	2 (50.0%)	73 (54.5%)	
More than four	0	14 (10.4%)	
Duration of prostituting (month)	10.7 (SE 4.8)	11.3 (SE 1.8)	NS
Regular use of condom (yes/no)	4/0 (100%)	120/23 (83.9%)	NS