

Methods In 2010, 44 local gynaecologists were included in this prospective study. They reported demographic data for every woman aged 15–64 years that they visited for any reason. For women diagnosed with eGW, behavioural and clinical data were recorded. Prevalence was calculated as the proportion between the number of women with eGW and that of women visited; incidence was calculated as the proportion between the number of women with a new diagnosis of eGW and that of women visited. Standardized prevalence by age was used to estimate the number of eGW cases occurring in Italy in the female population aged 15–64 years.

Results In 2010, 16,410 women were included; 63 women were diagnosed with eGW (prevalence: 3.8%, 95% CI: 2.9–4.9). The highest prevalence was observed among 15–24 year-old women compared to women older than 25 years of age (7.2% vs 3.2%), with a trend significantly decreasing by increasing age (p -value < 0.001) and among women living in Southern Italy compared to those living in Central and Northern Italy (5.4% vs 2.5%, p = 0.003). The incidence was 3.0% (95% CI: 2.2–3.9). The estimated number of women with eGW among women aged 15–64 years in Italy in 2010 was approximately 69,000.

Conclusions These data confirm the prevalence of eGW reported in a retrospective Italian study conducted among gynaecologists (Vittori *et al.* 2008), and stress the importance of clinical networks in investigating STI epidemiology, as well as promoting safe sex, implementing early diagnosis, treatment and prevention.

P3.038 HEPATITIS C COINFECTION IN PERINATALLY INFECTED HIV CHILDREN

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Background this study analysed epidemiological aspects of HIV/HCV confection in HIV infected children at Instituto Infectologia Emílio Ribas, São Paulo, Brazil.

Methods HCV serology is performed on a routine basis on all children who attend our hospital. In this study, we analysed all patients with confirmed HCV infection (positive qualitative PCR for HCV). The data collected was age, sex, mode of transmission of HCV (HCV positive mother, use of blood transfusion and use of immunoglobulin).

Results Approximately 400 patients are seen regularly at our institute. Of these, 12(3%) were identified as HCV confirmed. 7 were females and 5 are males. Age ranged from 14 to 20 years on the moment of analysis. All patients were mother to child transmission of HIV. Regarding possible mode of transmission of HCV, 2 had HCV positive mothers, 2 had HCV negative mothers and 8 (66%) were unknown. Related to blood transfusions, 5 (42%) had history of blood transfusions, 6 (50%) did not and one was unknown, all blood transfusions were done at early infancy. All patients received immunoglobulin for more than 5 years (1993–2007) for prophylaxis of recurrent infections as recommend by national guidelines of HIV treatment. There were no cases of IV drug use. Two patients who initially had negative HCV serology a few years later seroconverted and had confirmation of HCV infection.

Conclusion our prevalence of HCV/HIV co-infection is higher than other studies, there was no significant difference between genders, unfortunately 8 children had unknown mother HCV condition, because many of them were orphans. Calls attention the use of biological products as a probable mode of transmission, in particular the 2 cases of confirmed sero-conversion observed.

P3.039 EARLIER MENARCHE IS ASSOCIATED WITH A HIGHER PREVALENCE OF HERPES SIMPLEX TYPE-2 (HSV-2) IN RURAL MALAWI

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Background We have previously shown that girls with earlier menarche tend to have sexual debut and marry at a younger age, and to drop out of school earlier. We investigated the association between menarche and HSV-2 infection.

Methods The Karonga Prevention Study in northern Malawi includes demographic surveillance in a population of about 33,000. Information on sexual behaviour was collected in annual rounds from 2007 and serosurveys for HSV-2 were done. A question on age at menarche for women aged 15–30 was added midway through the first sexual behaviour round. For those with missing data on age at menarche from the first round the response from the subsequent round was used.

Results 6796 women were interviewed, 86% of those eligible. This included 3965 women aged 15–30: 3419 (86%) were tested for HSV-2 and 870 were positive (25.5%). 3166 reported age at menarche: approximately one quarter had menarche aged < 14, 14, 15 and ≥ 16. After adjusting for current age, there was a strong correlation between older age at menarche and lower prevalence of HSV-2: compared to those with menarche aged < 14, the age-adjusted odds ratios were 0.89 (95% CI 0.71–1.1), 0.71 (0.57–0.89) and 0.69 (0.54–0.89) for menarche aged 14, 15 and ≥ 16 respectively. This association persisted after adjusting for socio-economic factors, including schooling, and for proximal risk factors (marital status, age at first sex, lifetime number of partners).

Conclusion In this population earlier menarche appears to lead to multiple disadvantages. Since the association with HSV-2 persisted after adjusting for measured sexual behaviour factors this suggests that early menarche leads to riskier behaviours not captured in our survey, for example having higher risk partners. Age at menarche is likely to drop with improving nutrition, putting more young women at risk.

P3.040 THE EPIDEMIOLOGY OF HERPES SIMPLEX VIRUS TYPE-2 INFECTION AMONG PREGNANT WOMEN IN RURAL MYSORE TALUK, INDIA

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Objectives To assess the prevalence and correlates of herpes simplex virus type-2 (HSV-2) infections among pregnant women attending mobile antenatal health camps in rural villages in Mysore Taluk, India.

Methods A cross-sectional community-based study was conducted between June 2007 and Dec 2008 among pregnant women living in rural villages in Mysore Taluk. Each participant completed an interviewer-administered questionnaire in Kannada and consented to provide a blood sample for HIV testing and other antenatal investigations. All women were also screened for type specific HSV-2 IgG antibodies. Multivariable logistic regression models were used to analyse sociodemographic and other behavioural related characteristics related to the prevalence of HSV-2 infection.

Results There were 487 women found to be pregnant in the selected 52 different villages in Mysore Taluk. Majority (478/487, 98%) participated in the study and underwent an interviewer-administered questionnaire and other procedures. HSV-2 prevalence was 6.7% (95% confidence interval [CI] 4.4–9.0) among the study population, while only a single woman tested positive for HIV. The average age of women in was 21 years and had been married for an average of 34 months. Women whose main sex partner travelled away from home had 2.68 (CI: 1.13–6.34) times the odds of being HSV-2 seropositive

compared to a women whose main sexual partner did not travel. Having experienced genital lesions was also associated with HSV-2 infection (P -value = 0.060).

Conclusion The 6.7% HSV-2 prevalence was similar to results obtained in other studies measuring the prevalence of HSV-2 among pregnant women in India. It is plausible that most women in this study contracted HSV-2 from their husbands and few women regularly use condoms with their husbands. This highlights the need for continuing education among both women and men living in rural India to increase condom use to decrease the spread of both HSV-2 and HIV.

P3.041 IDENTIFYING AND CHARACTERIZING PLACES FOR THE TARGETED CONTROL OF HIV IN URBAN AREAS

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Background HIV transmission has been associated with specific populations in specific places, i.e. places where drug and sexual networks overlap consistently. Canvassing places or venues where people congregate has been shown to be an effective means of identifying sexually transmitted infection cases for public health control and surveillance purposes. The objectives of this study were to identify and characterise heterosexual sex partner meeting venues in one U.S. urban area according to the presence or absence of HIV cases.

Methods Eighty-seven potential high-HIV-risk heterosexual sex partner meeting venues were identified using a three-phase methodology. Subsequently, a venue-based, cross-sectional study of sexually active 18–35 year olds was conducted in Baltimore, Maryland from October 2008 through December 2009.

Results 1,594 participants were enrolled at 87 venues. Fifty-nine HIV cases were identified yielding an overall HIV prevalence of 3.7% and a mean venue prevalence of 3.6% (range = 0% to 25%). One or more cases of HIV was identified at 42% ($n = 37$) of venues (i.e. HIV positive venues). In bivariate analysis, commercial sex work (OR: 1.04; 95% CI: 1.01, 1.08), high HIV-risk sexual partnering (OR: 1.11; 95% CI: 1.03, 1.20), recent parenteral risk behaviour (OR: 1.05; 95% CI: 1.01, 1.10) and drug market activity (OR: 2.67; 95% CI: 1.09, 6.52) were reported significantly more frequently at HIV positive versus HIV negative venues. In final age-adjusted models, HIV positive venues had 10% more high HIV-risk sexual partnering (OR: 1.10; 95% CI: 1.01, 1.19) and more than twice as much drug market activity (OR: 2.59; 95% CI: 1.04, 6.46) compared to HIV negative venues. Sex market activity was not significantly associated with venue HIV status.

Conclusions This study highlights characteristics of venues, such as drug markets, that may be important in identifying places which are more likely to have active HIV transmission.

P3.042 HIV PREVENTION IN MOTHERS AND CHILDREN OF DELHI SLUMS: LEARNING, PERSPECTIVES AND LOOKING AHEAD

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The most effective way to prevent mother-to-child transmission of HIV involves antiretroviral drugs and avoidance of breastfeeding. When women who are already on ART become pregnant, the benefits and risks of ART in the first trimester need to be considered. The benefits are a reduction in the risk of developing resistance and a decrease in the risk to the mother. The risk consists of the potential for ARV fetal toxicity. Good clinical management of HIV in pregnant women requires the support of a multidisciplinary team,

including antenatal specialists, paediatricians, counsellors and community-based organisations.

Cygnus Medicare, a newly emerging healthcare organisation dedicated to providing world class healthcare in resource-limited settings, has been working in the slums of Delhi for last several years with a strong public health approach. It runs seven fully equipped hospitals where poor people are treated at subsidised rates and special programmes are held which focus on education of high risk groups, including commercial sex workers and migrant workers on HIV. Daily ante-natal clinics are held, benefitting over 5000 women in last 3 years. Ante natal clinics and delivering rooms have a dedicated team of health workers trained in education on PMTCT. A large number of awareness camps and activities are organised. The entire medical team periodically goes through trainings and orientations focusing on education and prevention of HIV/AIDS with an emphasis on PMTCT.

The organisation also has an outreach component of service delivery, through which remote slum areas are regularly visited by mobile medical vans to provide curative, diagnostic and educational services to the pregnant women.

The response and acceptance to the programme so far has been very positive. Over the last three years, there has been a large increase in the number of women attending the ante-natal clinics and camps.

P3.043 PRETERM BIRTH AND FETAL GROWTH RESTRICTION IN HIV-INFECTED PREGNANT WOMEN AT A TERTIARY PUBLIC HOSPITAL IN VITÓRIA, BRAZIL

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Introduction A maternal HIV infection may have two outstanding consequences to fetal health: mother-to-child transmission and adverse perinatal outcome. After the success in reducing mother-to-child transmission the attention must now be diverted to the high proportion of HIV-exposed children that are born preterm or with fetal growth restriction.

Objective To determine the prevalence of preterm birth and fetal growth restriction in low income, antiretroviral users, HIV-infected women and to verify its relation to the HIV infection stage and comorbidity.

Patients and Methods Out of 250 deliveries from HIV-infected mothers at a tertiary public university hospital in the city of Vitória, state of Espírito Santo, Southeastern Brazil, from November 2001 to May 2012, we included 109 (43.6%) single pregnancies with data about the gestational age, HIV status, antiretroviral use, and fetal dimensions. Data were extracted from clinical and pathological records, the gestation age estimated and the fetal dimensions classified as small, adequate, and large for gestational age according to the pertinent reference standard.

Results Preterm birth was observed in 17.4%, low birth weight in 23.9% and small for gestational weight, length, and cephalic and abdominal circumferences in 22.0%, 29.0%, 1.0%, and 43.6%, respectively, without significant variation according to the HIV infection severity or the existence of comorbidity. The concomitant distribution of small for gestational weight, length and abdominal circumference points to an asymmetrical fetal growth restriction.

Conclusions The prevalence of preterm birth and growth restriction were higher than the Espírito Santo State liveborn Registry prevalence and the expected population distribution in the gestations of HIV-infected, low income, ART users, and publicly assisted pregnant women in this casuistry.