P1.036 LACK OF EVIDENCE FOR SEXUAL TRANSMISSION OF GENITAL *CANDIDA ALBICANS* ISOLATES AMONG WOMEN WHO HAVE SEX WITH WOMEN IN SEXUAL PARTNERSHIPS

doi:10.1136/sextrans-2013-051184.0257

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Introduction The contribution of sexual transmission to genital *Candida albicans* infection remains unclear. Epidemiologic studies have shown that vulvovaginal candidiasis (VVC) is associated with increased frequency of vaginal sex, receptive orogenital sex, and increased numbers of sexual partners. Correlation of candidal infection between sexual partners has been observed and studies using genotype comparison techniques suggest that genital *C. albicans* may be sexually transmitted. Nevertheless, conflicting evidence exists regarding treatment of male sexual partners of women with recurrent VVC. The objective of this study was to determine the concordance of *C.albicans* isolates among women who have sex with women (WSW) in sexual partnerships using the random amplified polymorphic DNA (RAPD) technique.
Methods WSW in sexual partnerships and participating in a cross-sectional study of STI prevalence at the Mississippi State Department of Health STD clinic in Jackson, MS were selected for this study if both women had genital isolates of *C.albicans* identified. Isolates were cultured by standard laboratory practises. DNA was extracted from pure culture. RAPD PCR was performed using 3 separate random oligomers to differentiate genotypic information. Banding patterns were standardised against a known sizing-ladder for hierarchical cluster analysis.
Results Among 196 WSW, 13 pairs of WSW in sexual partnerships were identified. 4 pairs consisted of exclusive WSW during the past 12 months, 1 pair of WSW reporting sex with both women and men (WSWM), and 8 pairs a mixture of WSW and WSWM. 11 WSW not in sexual partnerships were randomly selected and matched via distribution frequencies to the partnership group by age and history of sex with men. *C.albicans* isolates from a total of 36 participants fell into 13 banding patterns. Banding patterns were discordant between WSW in all 13 partnerships.
Conclusion This study found no evidence supporting sexual transmission of genital *C.albicans* isolates among WSW in sexual partnerships.

P1.037 ANALYSIS OF THE MAJOR HUMAN CERVICAL MUCUS PATTERNS IN NORMAL HEALTHY FEMALES USING DIFFERENT METHODS OF BIRTH CONTROL

doi:10.1136/sextrans-2013-051184.0258

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Background Mucins and glycoproteins in the cervicovaginal environment are an important component of female genital tract (FGT) innate immunity. Optimally, microbicide use should not disrupt the mucus layer protecting the genital epithelium. The objective of this study was to characterise the glycoproteins and mucin components of cervical mucus to determine differences due to the menstrual cycle or method of contraceptive.
Methods Cervical mucus samples were collected from 120 normal healthy volunteers using a Catamenial cup placed over the cervix for 30 min. Aliquots were stored at –80°C. The six groups (20 participants per group) were: healthy asymptomatic post-menopausal women (PM), women in the proliferative or follicular phase, and women using levonogerestrol IUDs, DMPA or combined oral contraceptives.

Proteins were separated by SDS-PAGE using both 12% Bis Tris and 3–8% Tris acetate acrylamide gels. The gels were stained with Coomassie blue (CM) for (12%gels) or silver stain for (3–8%). Albumin concentrations were measured using ELISA. Western blots were prepared in an iBlot system.
Results The albumin values were very similar between groups, avg. 0.72 ± 0.01 ng/ng protein. Mucins and other glycoproteins were visualised by silver stain, and appeared in the 300 Kdal area of 3–8% gels. These proteins were not resolved into a single band. CM staining and sorting of samples revealed 8 distinct protein banding patterns, PBP, (range 50–80 Kdal, 12% gel). Most PBPs were found in different groups, except Type I was only found in the PM group (50%). Western blots revealed most of these bands to be hydrolysis fragments of albumin.
Conclusion The women in all six study groups had similar quantities of albumin. Cervical mucus presents as 8 different protein banding patterns. At present, these data suggest the groups differ in how they metabolise albumin and by extension other protein in the cervical mucus.

P1.038 CHLAMYDIAL ANTIGEN AND NUCLEIC ACID DETECTION IN LIVER BIOPSIES FROM PATIENTS WITH CHRONIC CHOLELITHIASIS

doi:10.1136/sextrans-2013-051184.0259

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Background It is known that chlamydial species can propagate in hepatocyte cell lines. Moreover, some clinical cases of chlamydial infection involve liver abnormalities. This study was to clarify whether chlamydial markers (protein and nucleic acids) could be detected in liver biopsies from patients with calculous cholecystitis.
Material and Methods Liver biopsies were obtained from 39 patients during cholecystectomy and analysed with immunohistochemical, nucleic acid amplification and serological protocols. Liver specimens from 8 trauma victims served as controls.
Results It was shown that from 39 patients with cholecystitis 19 gave considerable signal generated by antibodies against C. trachomatis (15 patients) or C. pneumoniae (4 patients). 10.2% (4/39) of the samples contained detectable 16S rRNA genomic sequence from C. pneumoniae while amplifiable fragments of 16S rRNA and pLGV cryptic plasmid from C. trachomatis were found in 20.5% (8/39) of DNA specimens. The control group had a zero detection rate for chlamydial genetic markers in the liver. Simultaneous detection of genetic and immunohistochemical markers validated by positive serological status took place in a very limited number of the patients (4 cases for C. trachomatis and 2 cases for C. pneumoniae). Moreover, it was shown that C. trachomatis and C. pneumoniae can efficiently propagate in freshly isolated rat primary hepatocytes forming infectious progeny.
Conclusions Identification of chlamydial markers in liver biopsies along with the ability of the chlamydial pathogens to propagate in native hepatocytes may suggest the possible involvement of chlamydial species in inflammatory hepatobiliary disease. We have assumed previously that abnormalities of cholesterol homeostasis associated with the increase of ApoB-containing lipoproteins may promote enhanced uptake of chlamydial particles in the liver. Thus, it is conceivable that the appearance of chlamydial markers in hepatic biopsies of patients with cholelithiasis takes place due to proatherogenic changes in plasma lipoprotein profile.