P2.187 LEUCINE-RICH IMMUNOGLOBULIN-LIKE REPEATS (LRIG) 1, 2 AND 3 IN CERVICAL NEOPLASIA

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Leucine-rich immunoglobulin-like repeats (LRIG) 1, 2 and 3 in cervical neoplasia

Background Cervical neoplasms; invasive cancer and intraepithelial neoplasia (CIN), are sexually transmitted infections, HPV infection is the main etiological agent. Defining factors that are correlated to increased risk, diagnosis, prognosis and other clinical features are important.

Methods 129 invasive cervical cancers in stages IB to IV, 47 cases of high grade CIN, 59 cases of low-grade CIN and 64 biopsies from normal epithelium were consecutively recruited. The cervical biopsies were evaluated for LRIG expression, and a total of 15 other relevant biological tissue markers (tumour markers) in invasive cancer and CIN. A structured questionnaire, and serum estradiol and progesterone were included.

Results In early stages of invasive cancer LRIG 1 expression correlated to a favourable prognosis (90% vs. 64% survival), while the reverse was true for LRIG 2 expression (60% vs. 87% survival). Low expression of LRIG 1 and high for LRIG 2 indicated a very poor prognosis (26% vs. 66%). LRIG 3 expression had no impact on prognosis. Smoking and high serum progesterone correlated to absence of LRIG 1 expression.

In CIN both LRIG 1 and LRIG 2 expression increased with increasing severity of the lesion.

There was a correlation between LRIG 3 expression and HPV infection as well as three tumour suppressors (Rb, p53 and p16) and use of progestogenic contraceptives, whereas LRIG 2 correlated negatively to Rb. Both LRIG 1 and LRIG 2 correlated to expression of tumour suppressor FHIT.

Conclusion There seems to be biological roles for LRIG 1, LRIG 2 and LRIG 3 in HPV-associated cervical neoplasia. In invasive lesions LRIG 1 is associated with suppression, LRIG 2 with progression of the tumour, while the role of LRIG 3 remains obscure. In CIN LRIG expression correlates to a number of events associated with outcome.

P2.188 HYPOGONADISM AND ASSOCIATED FACTORS AMONG MEN WITH HIV INFECTION IN SHIRAZ, SOUTHERN IRAN

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Introduction Previous research in human immunodeficiency virus (HIV) infection indicates that hypogonadism is common in men with HIV infection, and may be the first or most sensitive endocrine abnormality. We examined the prevalence of hypogonadism and its association with some related factors among a group of HIV$^+$ Patients in Shiraz-Iran.

Material and method: In this cross-sectional study, a total of 222 male HIV-positive patients referred to Shiraz voluntary counselling centre were recruited based on convenience sampling from May to October 2010. All patients provided informed consent and blood samples were collected after an overnight fast to measure free testosterone (FT) concentration, HGB, LH, FSH, and Prolactine. The body mass index (BMI) of all patients was also measured.

Results The mean age of the participants was 37.4 ± 7.4 years. Fifty four (24.32%) of the patients had developed AIDS, 180 (64%) were HCV-positive and 23 (8.3%) were HBS-positive. About 42% of participants were on MMT programme. According to the BMI, 15.1% were underweight, 7.6% were overweight, and 0.4% was obese. Based on free testosterone (FT) level, 66.8% had hypogonadism and among them 30.8% were primary and 69.1% were secondary Hypogonadism. We divided participants to Hypogonadal(n = 84) and ugonadal(n = 133) groups. Based on univariate regression analysis, the results showed that decreased FT level were associated with age, methadone use (OR = 1.74, CI: 0.97–3.1), LH (OR = 0.91CI: 0.87–0.95), HGB (OR = 0.788, CI: 0.69–0.89), BMI (OR = 0.88, CI: 0.79–0.98) and PRL(OR = 1.18(CI: 1.09–1.28) but FT had not significant association with Diabetes, Smoking, Hepatitis and being on AIDS stage.

Conclusions The prevalence of hypogonadism was high. Increasing age, high level of serum Proloctine, lower body mass index and anaemia were associated with hypogonadism. Increasing one unit of LH and HGB could have a protective effect on hypogonadism.

P2.189 WHAT MATTERS MORE? TREATING MOLLUSCUM CONTAGIOSUM OR SCREENING FOR OTHER SEXUAL INFECTIONS - AN AUDIT OF CLINICAL PRACTICE

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Background Molluscum contagiosum (MC) is a common benign viral skin infection seen in children and adults. The mean duration of lesions is 8 months and resolution expected within 18 months. We planned to audit our clinic management of anogenital MC against the UK BASHH guidelines.

Methods All patients with a coded diagnosis of MC between January 2011 - September 2012 were identified; clinical data were collected from electronic patient records and analysed using an Excel database.

Results 96 patients were newly diagnosed with MC (19 female, 77 male); median age 25 (range 17–48) years. 15% always used condoms and 22% never; the rest mainly sometimes. 76% (72) had 1–2 partners in the preceding 3months. 3 patients were already known to be HIV positive. 96% (92) were offered STI screening and 88 screened. 92% were treated with cryotherapy, 2% podophyllotoxin +/- cryotherapy and 4% conservatively. 45% of cryotherapy patients re-attended, the rest did not. The median number of clinic visits required overall was 1 (range 1–10) but 3 for cryotherapy reattenders. 13 patients had concurrent STIs (prevalence 15%); Chlamydia (7), genital warts (5) and HSV (1). 6 patients with Chlamydia were aged < 25 years.

Conclusion The high prevalence of STIs emphasises the need to screen all patients with anogenital MC. We fell slightly short of the BASHH target of 100% screened for STIs. MC was mainly actively managed with clinic based treatments which have implications in terms of staff resources and patient's need to re-attend for a potentially self limiting condition. A clinical trial has demonstrated comparable efficacy with Imiquimod and cryotherapy; the former slower to work but fewer side effects. Conservative management could lead to autoinoculation and sexual transmission. Selected informed patients could be offered conservative management and home-based therapies can be offered prior to cryotherapy.

P2.190 NEUROSYPHILIS CASES IN THE HUNGARIAN NATIONAL STD CENTRE IN THE LAST 5 YEARS

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Background The incidence of syphilis has increased in Hungary (6.3/100000 in 2012), with simultaneous increase in neurosyphilis incidece. The aim of this study is to summarise our experience on clinical and serological characteristics, the treatment results, and association with HIV-infection.
Methods clinical, serological and cerebrospinal fluid (CSF) analysis: RPR/VDRL, TPPA/TPHA, TP ELISA, TP IgM/IgG Western blot, albumin, mononuclear cell count of 8 patients with neurosyphilis. The diagnosis of neurosyphlis was based on clinical symptoms, syphilis serology, the positive results of VDRL and/or TPHA tests, and the increased number of mononuclear cells in CSF.
Results The 7 male and 1 female patients were between 25 and 84 years of age. 4 male patients were HIV-positive, 3 of them were MSM, one was bisexual. 5 patients had neurosyphilis with symptoms such as headache, dizziness, central facial palsy, visual impairment, sensory loss, diminished tendon reflexes.

Asyptomatic patients had schizoaffective disorder, visual impairment, syphilitic reinfection respecively, neurological symptoms were obsereved more frequently in patients with HIV-infection.

TPPA/TPHA test in 7 patients', VDRL test in 3 patients' and increased number of mononuclear cells in 7 patients' CSF were positive. All patients were treated with high dose intravenous benzyl penicillin (24 million units iv. daily for 14 days), the effectiveness of treatment was documented by the improvement in clinical symptoms and by the decrease of RPR titer.
Conclusion The clinical course was similar in patients with HIV and without it. One third of patients with neurosyphilis was symptoms free, the remaining of them presented clinical symptomps of neurosyphilis. The adequate indication of CSF examination is essential for the diagnosis of neurosyphilis. The long-term penicillin therapy was effective in our cases.

P2.191 DC-SIGN,DC-SIGNR AND SDF-1 POLYMORPHISM IN HIGH RISK SERONEGATIVE SEXUALLY TRANSMITTED DISEASE PATIENTS FROM NORTH INDIAN

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Background Dendritic cells are the first to encounter HIV-1 at mucosal sites and virus binding occurs via receptors known as DC-SIGN/R. Variations in the number of repeats in the neck region of DC-SIGN/R are reported to possibly influence host susceptibility to HIV-1 infection A single nucleotide polymorphism (SNP) in SDF-1, the natural ligand for the HIV-1 co-receptor CXCR4, is implicated to have protective effects against HIV-1 infection.
Methods The repeat region polymorphisms in DC-SIGN/R by PCR and SNP of SDF1–3'A by PCR-restriction fragment length polymorphism (RFLP) in 230 healthy HIV seronegative individuals, 200 high risk sexually transmitted disease (STD) patients seronegative for HIV and 230 HIV-1 seropositive patients from northern India. The study was approved by the institutional ethics committee.
Results The frequency of homozygous *DC-SIGNR* 7/7 genotype and allele 7 was significantly higher in patients infected with HIV-1 ($P < 0.0001$) whereas frequency of heterozygous *DC-SIGNR* 7/5 genotype and allele 5 was significantly higher in high risk STD patients seronegative ($P = 0.003$). The heterozygous *DC-SIGNR* genotypes 7/5 and allele 5 was associated significantly with high $CD4^+$ T-cell count and low viral load compared to homozygous *DC-SIGNR* 7/7 genotype and allele 7 in patients infected with HIV-1. *DC-SIGN* genotype 7/7 was most frequent in all three groups. A significantly higher frequency of *SDF1–3'A/SDF1–3'A* was observed in high risk STD patients as compared to HIV seropositive ($p = 0.005$) and healthy HIV-1 seronegative tested individuals ($p = 0.001$).
Conclusion The significant higher frequency of heterozygous *DC-SIGNR* 7/5 and SDF1–*3'A* genotypes in high risk STD patients and with high $CD4^+$ T-cell count and low viral load in HIV-1 seropositive patients suggesting the protective role of this genotype in HIV-1 infection.

P2.192 VAGINAL EPITHELIAL THICKNESS AND SERUM HORMONE LEVELS BY BODY MASS INDEX AT THE LUTEAL AND FOLLICULAR PHASES OF THE MENSTRUAL CYCLE

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Background Obesity is increasing in the United States and is associated with reproductive disorders. Little is known regarding the precise mechanisms by which obesity impacts reproductive health, but many studies have shown alterations to endocrine function in obese women. Further, the endocrine system alters immune system function and regulates vaginal epithelial thickness. Thus, obesity could alter susceptibility to sexually transmitted infections via two distinct biological pathways.
Methods We analysed pre-product use data from a 101 women (aged 18 to 40) with normal menstrual cycles in a Phase I trial to assess the association between body mass index (BMI ≥ 30 compared to BMI < 30), serum hormone levels and vaginal epithelial thickness at two points in the menstrual cycle, the luteal and follicular phase, based on self-reported last menstrual period (LMP). We collected vaginal biopsies at each visit for analysis of epithelial thickness and count of basal, transitional and superficial cell layers, and blood samples for circulating hormone levels. We used median rank sum tests and linear regression models to compare outcomes by BMI status, adjusting for a priori hypothesised confounders.
Results While there was no difference in total median vaginal epithelial thickness between obese and non-obese women, obese women had fewer layers of superficial vaginal epithelium (median of 15.4 vs. 13.3 layers, $p = 0.04$) than their non-obese counterparts during the luteal phase, even after adjusting for race, age, parity and education (as a marker of socio-economic status, $p = 0.08$). In preliminary analysis, obese women had significantly lower median estrone (E1) and progesterone (P4) plasma levels than non-obese women during the luteal phase. No significant differences were seen in the follicular phase.
Conclusion The effect of obesity on the endocrine system could alter the cervico-vaginal milieu and, thus, women's susceptibility to sexually transmitted infections. Further research is warranted to explore this causal pathway.

P2.193 OCULAR SYPHILIS IN HIV-NEGATIVE PATIENTS

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Background Ocular syphilis is reemerging in the last decade in several countries around the world. However, little is known about the clinical and Cerebrospinal fluid (CSF) characteristics in HIV-negative individuals.