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

D Hellberg, R Samir, A K Lindström, Center for Clinical Research, Falun and Dept. of Women’s and Children’s Health, Uppsala University, Falun, Sweden; Dept. of Obstetrics and Gynecology, Falun Hospital, Sweden

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 prognostic 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.

Hypogonadism and associated factors among men with HIV infection in Shiraz, Southern Iran

H Faramarzi, M Amin Lari, M Marzban, M Shams. Shiraz HIV/AIDS Research Center, Shiraz University of Medical Science, Shiraz, Iran; Department of Biostatistics and Epidemiology, Kerman University of Medical Sciences, Kerman, Iran; Endocrinology and Metabolism Research, Shiraz University of Medical Science, Shiraz, Iran

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-positive 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=155) 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 = 0.91: CI: 0.87–0.95), HGB (OR = 0.78, 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 Prolactine, lower body mass index and anaemia were associated with hypogonadism. Increasing one unit of LH and HGB could have a protective effect on hypogonadism.