

**O0201 Advanced HIV and low squamous intraepithelial lesions (LSIL) as predictor factors of high squamous intraepithelial lesions (HSIL) and anal cancer (SSCA)-related with HPV in HIV-positive MSM**

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**Background:** to analyse the prevalence and incidence of HSIL and ASCC in HIV-positive patients MSM; and to evaluate the predictor factors of progression to HSIL/ASCC (≥HSIL).

**Materials/methods:** We conducted a single-centre, prospective, and longitudinal study (april 2010-july 2016). At baseline and follow-up visits we collected HIV-related data and sexual behaviour; a cotton swab was used to take anal samples in liquid medium (ThinPrep® Pap Test) for cytology (Thin Prep Processor 2000, Hologic Corp, USA), and PCR of HPV (Linear Array HPV Genotyping Test, GeneAmp PCR System 9700, Applied Biosystems); afterwards, a high resolution anoscopy (HRA) was carried out (Zeiss 150 fc ©). The patients with normal or LSIL anoscopy were checked-up annually; the patients with HSIL were treated (electrosurgical excision procedure from 2010 (n=51), o intranal Imiquimod/3 times a week for 16 weeks, from 2013 (n=19); and the patients diagnosed of ASCC were sent to Oncology Service. 64 patients were vaccinated with qHPV (2012-2014).The cytological classification employed was Bethesda's, and histological the LAST project of HPV. We defined "advanced HIV" as patient diagnosed with CD4 <200 cells/μL or AIDS-defining diseases regardless of CD4 cell counts.

**Results:** 319 patients were included, with an average age of 36.7y and 23 months of follow-up [95%CI (20.4-24.9)]. 71.5% had low-risk HPV genotypes, 81.3% high-risk-HPV and 59.8% had both types. HPV-16 was the most frequent genotype in anal mucosa (32.9%). 319 HRA were carried out in baseline visit, 137(42.9%) were normal, 138 (43.2%) LSIL(AIN1), 43 (13.5%) HSIL (AIN2/3) and 1 (0.3%) SCCA. The incidence of HSIL was 71.4 cases x1.000person-year and the incidence of SCCA was 166 cases x100.000person-y. The factors related with the progression to lesions ≥HSIL were history of AIDS [OR 7.4 95%CI (1.52-36.1), and LSIL(AIN1) at baseline visit (OR 4.49 IC95% (1.39-14.49)

**Conclusions:** One in seven HIV-positive MSM patients had a HSIL lesion associated to HPV infection. The treatment of anal HSIL seemed to prevent the progression to SCCA. Advanced HIV disease and previous LSIL in anal mucosa were related with the progression to lesions ≥HSIL.

