Background: Anal squamous cell carcinoma (ASCC) is one of the most frequent non-AIDS-defining neoplasias in HIV patients, mainly in MSM, and has been associated with chronic infection with high-risk human papilloma virus (HR-HPV). Our main objective was to analyze the incidence of HSILs and ASCC (HSIL+) in anal mucosa of HIV+ MSM, and the risk factors related.

Results: Among the 405 patients, 87.2% had at least two control HRA with a median follow-up of 36 months (IQR: 12-69). During this period, 88 HSIL cases and 3 ASCC cases were diagnosed, with prevalence rates of 21.7% and 0.74%, respectively. The incidence of HSIL 30.86/1,000 patient-years and ASCC 81.22/100,000 patient-years. One ASCC was resolved with wide local surgery; another was treated with abdominal-pelvic amputation, chemotherapy, and radiotherapy and has been in remission for 12 months; and the third patient with ASCC died at 15 months post-diagnosis after chemotherapy and radiotherapy. 49 HSILs were treated by mucosectomy and 34 with intra-anal 5% imiquimod. None of the treated patients progressed to ASCC. We found significant reductions in HSIL+ cases between 2010 and 2018 (42.9% vs. 4.1%, p=0.034), between 2010 and 2013 (42.9% vs. 13.8%, p=0.003), and between 2013 and 2016 (13.8% vs. 4.8%, p=0.001), followed by a stabilization between 2016 and 2018 (4.8% vs. 4.1%, p=0.617).

Patients and methods: The study included consecutive HIV-infected MSM (May 2010-December 2018). Data were gathered at baseline and annually on their sexual behavior, CD4 and CD8 levels, plasma HIV viral load, and results of anal cytology, HPV PCR, and HRA. Figure shows the Flow chart of patients through the study. There were two options for patients with HSIL: mucosectomy with electric scalpel by the coloproctology (from May 2010 onwards); or self-administration of 5% imiquimod 3 times weekly (from November 2013 onwards). When ASCC was detected, patients were referred to the oncology department for treatment. Between May 2012 and May 2014, the qHPV vaccine was administered to 66 patient.

Conclusions: The reduction in HSIL+ rate observed in our patients may be attributable to the bundle of measures adopted at our center. The chronic mixture infection by HPV and low level of CD4 nadir were related to HSIL.