

Session: P089 HIV medicine

Category: 1a. HIV/AIDS (incl anti-retroviral drugs, treatment & susceptibility/resistance, diagnostics & epidemiology)

25 April 2017, 12:30 - 13:30
P1847

Which test is better for screening AIN2+ lesions: P16/ki67, anal cytology or high-risk HPV PCR in HIV+ patients?

Carmen Hidalgo Tenorio^{*1}, Concepcion Gil Anguita², Jessica Ramirez Taboada³, Samantha Elizabeth De Jesus³, Miguel Angel Lopez Ruz³, Javier Esquivias⁴, Mohamed Omar Mohamed Balgahata⁵, Rosario Javier¹, Juan Pasquau⁶

¹*Complejo Hospitalario Universitario Granada; Hospital Virgen de Las Nieves; Infectious Diseases*

²*Hospital Marina Baixa*

³*Hospital Universitario Virgen de Las Nieves; Complejo Hospitalario Universitario Granada; Infectious Diseases Service*

⁴*University Hospital Virgen de Las Nieves; Complejo Hospitalario Universitario de Granada; Pathology Service*

⁵*University Hospital Ciudad de Jaen; Infectious Diseases Unit*

⁶*Complejo Hospitalario Granada; Hospital Virgen de Las Nieves; Infectious Diseases*

Background: Squamous Cells of Adenosquamous Carcinoma (ASCC) is one of the most frequent non-AIDS defining malignances in HIV+ patients. Screening recommendations for premalignant lesions and ASCC in seropositive patients include annual cytology, and in cases of any grade of dysplasia, a high resolution Anoscopy (HRA). However, considering that cytology sensitivity is variable and somewhat low, the use of biological markers, such as High-risk- HPV PCR (1) and p16 (2), is being evaluated. Objective: to compare the sensitivity (S), specificity (E), positive (PPV) and negative (NPV) predictive values of p16+/ki67, anal cytology and high risk(HR)-HPV PCR in screening and diagnosis of anal HSIL, as well as the grade of correlation with the histology, according to kappa index.

Material/methods: this is a cross-sectional analysis of a prospective cohort of HIV+ patients being followed at our Anal Dysplasia outpatient clinic. In all patients, an anal cytology in liquid medium (ThinPrep® Pap Test), HPV PCR (Linear Array HPV Genotyping Test), detection of P16/ki67 in tissue sample, and HRA (Zeis 150 ©) were carried out.

Results: 79 patients were included, 15.2% were women, with an average age of 40.6 years, 93.7% received Antiretroviral therapy (ART) and 5.3% had virological failure. The S and NPV of P16+/ki67, HR-HPV PCR and cytology were comparable (P16/ki67 vs HPV, p=0,33; P16/ki67vs cytology, p=1; cytology vs HPV, p=0.33); P16+/ki67 was the most specific (Table 1). The best screening technique that ruled out 100% of premalignant lesions was the combination of normal anal cytology and negative HPV PCR (Table 2).

Conclusions: We recommend the combination of cytology and HR-HPV PCR for routine screening of anal HSIL in HIV patients. P16/ki67 would be more useful for diagnosis of AIN2+ lesions due to its specificity and correlation with histology.

1. Hidalgo Tenorio C. et al. Plos One 2015; 10:e0123590
2. Bala R, et al. Am J Surg Pathol. 2013; 37: 659-68.

Table 1.

	Sensitivity	Specificity	PPV	NPV	OR, IC95%; p	kappa
P16+/Ki67(+)	70%	79,7%	25%	94,8%	9, (2-40); 0,003	0,338
HR-HPV-PCR (+)	88,8%	36,8%	15,7%	96,2%	4, (0,5-39,4); 0,16	0,085
Abnormal Cytology	70%	52,7%	17,5%	92,3%	2,5, (0,6-10,7); 0,2	0,097

Table 2.

	Histology results		
	Normal, n (%) n=28	LSIL, n(%) n= 41	HSIL, n (%) n=10
Normal cytology (n=39)	23 (82.1)	13 (31.7)	3 (30)
ASC (n=6)	0	4 (9.7)	2 (20)
LSIL (n=29)	5 (17.8)	22(53.6)	2 (20)
HSIL (n=5)	0	2 (4.9)	3 (30)
HR-HPV-PCR +, (n=51)	16 (57.1)	27(65.3)	8 (88.8)
P 16+, (n=21)	6 (21,4)	7 (17.1)	7(70)
Normal cytology and HPV- PCR (-) (n=14)	10 (35)	4 (9.7)	0
Normal cytology and HR-HPV PCR (+) (n=23)	12 (42,9)	9 (21.9)	2 (20)
Normal cytology and P16 (-) (n=27)	3 (10.7)	22 (53.7)	2 (20)