FACTORS RELATED WITH PERSITANCE AND CLEARANCE OF ANAL HIGH-GRADE SQUAMOUS INTRAEPITHELIAL LESIONS IN MEN WHO HAVE SEX WITH MEN LIVING WITH HIV

Saumoy M1, Silva-Klug A1, Vega J1, Sánchez M1, Carmezim JP2, Pavón MA3, Alemany L3, Baixeras №, Trenti L5, Podzamczer D6, Paytubi S3.

¹HIV and STD Unit (Infectious Disease Service), Bellvitge University Hospital, Barcelona; ² Biostatistics Support and Research Unit, Germans Trias i Pujol Research Institute and Hospital; ³Infection and Cancer Laboratory, Cancer Epidemiology Research Program, Catalan Institute of Oncology, Barcelona; ⁴Pathology Unit Bellvitge University Hospital, Barcelona; ⁵Colorectal Unit, General and Digestive Surgery Department, Bellvitge University Hospital, Barcelona; ⁶Fight AIDS Foundation, Badalona. Spain.

GLASGOW 2024

P356

INTRODUCTION and OBJECTIVES

* Anal squamous cell carcinoma has a high incidence in certain groups, with the highest incidence in men who have sex with men (MSM) living with HIV, in whom it can reach to 78-402 cases /100000 person-years.

Anal smear for anal citology and human papillomavirus (HPV)

biomarkers and high ressolution anoscopy (HRA) with biopsy of

Composite HSII, result²

Follow-up every 6 months until clearance

non-HSIL histological result

nlt

* It is preceded by a precursor leson, the high-grade-intraepithelial lesions (HSIL). The detection and treatment of HSIL reduce the incidence of anal cancer.

At the same visit:

suspicious lesions

Composite non-HSIL result¹

Follow-up every 12 months

Non-HSIL cytological result and HRA with no biops

² Cytological HSIL result and/or histological HSIL result

• There is evidence that spontaneous regression of HSIL can occur.

The aim of the study was to describe the cumulative anal HSIL incidence and clearance rate and factors related in a cohort of MSM living with HIV.

METHODS

STUDY PARTICIPANTS

The ELAVI cohort is a prospective cohort of MSM living with HIV, following an anal screening programme from June 2016 to March 2021 in the Bellvitge University Hospital of Barcelona. The ELAVI cohort includes 354 participants. For the present study 291 participants with ≥ 2 years of follow-up were included. Participants with HSIL did not receive treatment during the follow-up.

OUTCOME DEFINITIONS

1) Incident HSIL: HSIL new diagnosis after a baseline visit without HSIL.

2) Clearance of HSIL: no HSIL in 2 consecutive visits after an HSIL diagnosis.

3) **Persistent HSIL**: not cleared HSIL after \geq 2 years of follow-up

RESULTS

aseline chara	cteristi	cs				Natural his	story			Variables relate	ad with incident HSIL	
	All participants	N	cHSIL	Non cHSIL	p-value		Initial partic	cipants Excluded (n=63)		(Incident HSIL	(Incident HSIL vs persistent non-HSIL)	
e (vears)	45.6 (10.9)	291	(n=78) 44.94(10.51)	(n=213) 45.89(11.03)	0.498		N=35	4	moved away (n=20), study		And and the second s	
- () //							-		withdrawal (7), non adherence to		- Againe	
rrent smokers,	107 (38.2%)	280	31 (40.79%)	76 (37.25%)	0.719				visits (n=7), died (n=7), warts	Age (> 35)		
/-infection related variables							Included pa	atients	treatment (n=3), unknown (n=19)	Genokur (Yes)		
dir CD4 T-cell count. cells/uL	322.9 (258.1)	291	323.4 (233.9)	322.8 (267)	0.831	Mean follow-up:	N=291 (82	.2%)		Smoker (Ex-amoker)		
						35 months	and the state of the	The second second		Age of Prot assess Mercourse		
rrent CD4 T-cell count, cells/µL	793.70 (332.7)	291	759.3 (344.4)	806.3 (328.2)	0.114			1		Number of sexual parments in the last o months	H	
dir CD4 T-cell count < 200	91 (31.3%)	291	23 (29.49%)	68 (31.92%)	0.776	HSIL	at baseline	Non-HSI	at baseline	Passive sec (ves)		
detectable HIV-1 RNA viral load, n (%)	255 (87.6%)	291	68 (87.2%)	187 (87.8)	0.776	78/29	91 (26.8%)	213/	201 (73 2%)h	Notic CD4 T-real counts a 200 (Yes)		
- the base						10/20	. (20.070)	213/2	201 (10.270)11	Gurran GDA T and anora - 200 (199)	· · · ·	
uar benavlour										Detectable HIV-1 RMA (Yes)		
at first sexual intercourse	17.9 (4.0)	275	17.7 (3.2)	17.9 (4.3)	0.557		and the second	Incid	lent HSIL	Baseline citology results (ASCUS)	2.40 [1.29, 4.49]*	
stime sexual partners		277						58/213	3 (27.23%)	Baseline citology results (LSIL)	2,4811,23, 5,017	
10, n (%)	96 (34.66%)		27 (36.00%)	69 (34.16%)		Excluded: prevalent		1		Baseline citology results (ASC-H)		
0-50, n (%)	66 (23.83%)		19 (25.33%)	47 (23.27%)		or incident HSIL that	, HS			0.3	1.0 3.0 10.0	
0-100, n (%)	40 (14.44%		13 (17.33%)	27 (13.4%)	0.555	don't meet criteria,	• N=	136	1 superficially in equamous cell car	rinoma	-+- Rea -+- Adjusted	
100, n (%)	75 (27.08%)		16 (21.33%)	59 (29.21%)		n=28.			Squarrous der dar			
ceptive anal sexual intercourse, n (%)	212 (75.7%)		51 (67.11%)	161 (78.92%)	0.059					Baseline HC2 HPV DNA test i	Positive) - 2.20 /1.30	
/ biomarkers				_								
						Po	reistant HSII		earance of HSII	Baseline LA HPV DNA lest (37 HPV genotypes) /	Positive)	
HPV DNA test	258 (89.9%)	287	74 (98.67%)	184 (86.79%)	0.002	40	1400 (AE 270/)			Beseine LA HPV DNA test (14 most frequent in DS/E7 mRNA test)	Positive)	
assessed by E6/E7 mRNA test	205 (71%)		71 (94.67%)	134 (63.21%)	<0.001	49,)	9/108 (54.63%)		1.96[1.08,	
·V-16	47 (16.4%)	202	34 (45.33%)	32 (15.09%)	<0.001		1 pm			Beseine HPV-10 I	JPOSERVE)	
E HPV DNA test	121 (42.16%)	287	57 (76.00%	64 (30.19%)	<0.001	Incidence rate for each outcome					24	
E7 mRNA test	147 (51.40%)	286	64 (86.49%)	83 (39.15%)	<0.001		NINC	Parror	Pate (per 100 PV)	Daveline EGE7 mRNA text	Positive)-	
V-16	47 (16.4%)		31 (41.89%)	16 (7.55%)	<0.001			. ersor	.,		2.20[1.3	
logy results, n (%)		285			<0.001	Incident HSIL	58/213 (27.23	%) 540.49	10.73 (8.15: 13.87)	Baseline E6/E7 mRNA test (HPV-16)	Positive)	
enign	150 (52.63%)		13 (16.67%)	137 (66.18%)		Perritent non-USU	155/212/22 2	7%) 540.40	28 68 (24 24 22 54)			
SLUS	48 (16.84%)		10 (12.82%)	38 (18.36%)		Persitent HSIL	49/108 (45.37	235.75	20.00 (24-34; 33.50)	Baseline 20/27 mRNA test (HPV-16 and/or HPV-18-46) r	Positive)-	
SIL	43 (15.09%)		17 (21.79%)	26 (12.56%)		Clearance of HSII	59/108 (54 63	K) 238.20	24 77 (19 96- 21 95)			
SC-M	37 (12.98%)		1 (1.28%)	6 (2.90%)		The second contract of Halt	35/108 (34.03	258.20	24.77 (18.80, 51.95)	* Hazard ratio (CI95%). Adjusted by age.		
SIL	7 (2.46%)		37 (47.44%)	0 (0.00%)								
IL: composite HSIL, LA: Linear array, HC2 Hy	brid capture, HPV: huma	in papilomav	irus, ASCUS atypical	squamous intraepithelia	I lesion, LSIL			Vari	ables related w	ith clearance of HSII (Classes	(IIIII an anti-test IIII)	
-grate squamous miraepithelial tesson, ASC-H tepithelial lesion.	aypear squamous infraer	ninenal lesic	in mai cannot exclude	non: non: high-squar	anda			van	ables related w	Clearance Of HOIL (Clearance	: OI HOIL VS persistent HSIL)	
		-						-	Raw - Adjusted		Raw Adjusted	
JDV/ provolop												

132 (85.16%) 52 (91.23%) 74 (98.67%) 55 (96.49% ed by E6/E7 mRNA t 92 (59.35%) 42 (73.68%) 71 (94.67%) 34 (45.33%) 50 (87.72%) HPV-16 17 (10.97%) 15 (26.32%) 15 (26.32%) HC2 HPV DN 39 (25.16%) 25 (43.86%) 57 (76.00%) 33 (57.89%) 52 (33.55%) 31 (54.39%) 64 (86.49%) 40 (70.18%) 7 (4.52%) 9 (15.79% 31 (41.89%) 14 (24.56%) IPV-16

CONCLUSIONS

Incident HSIL occurred in 10.7 per 100 PY and was associated with HIV-1 RNA viral load, anal citology and HPV-biomarkers. More than half of HSIL cleared spontaneously during follow-up. Detection of the HPV-16, could help determine if HSIL treatment is necessary.













genotypes*.

- Hybrid Capture 2[®] (HC2) HPV DNA test: detection of 13 HR-HPV genotypes*.

- Linear Array[®] (LA) HPV DNA test: detection of 37 HPV genotypes.
- *HPV-16/-18/-33/-35/-39/-45/-51/-52/-56/-58/-59/-66/-68

STATISTICAL ANALYSIS

Independent Cox proportional hazards models were performed for each outcome, including baseline demographic and HIV factors , anal cytology, and HPV biomarkers.