

# Methods

# Results

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# **Clinical Characteristics and Outcome of HIV-infected Patients with Invasive Anal Cancer**

# IPM Study Center

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### Background

 Invasive anal cancer (AC) is one of the most common Non-AIDS-defining malignancies.

 There is strong evidence that the incidence of invasive AC has increased during recent years.

• However, there are no controlled studies in these patients and data on clinical outcome is still limited.

• Retrospective analysis of all biopsy-proven cases of HIV+ invasive AC seen in the participating centers from 1/2000 to 12/2010 (Note: Abstract data was expanded to include an additional 29 patients).

• Cases of AC in situ were excluded.

 Overall survival (OS) was analyzed with respect to the use of ART, AC therapies and prognostic factors.

Baseline characteristics (all values mean±SD, if not otherwise indicated

s / females)	121 (117 / 4)
ars (range)	48.2 ± 9.3 (29.1–72.8)
ince 1. +HIV serology (range)	11.9 ± 6.4 (0–25.8)
DS diagnosis	46% (54/117)
r former smoker	77% (68/88)
ackage years	34 ± 21 (5–80)
ology, subtype	
ous cell carcinoma	83% (101/121)
arcinoma	2% (3/121)
sifiable/NA	14% (17/121)
of Condylomata acuminata	51% (52/102)
of dysplasia	18% (17/93)
ance Score 0	56% (56/101)
ance Score 1	25% (25/101)
ance Score >1	20% (20/101)

## **Results (continued)**

After a mean follow-up of 3.78 years, 26 (21%) deaths have occurred. In 18 (15%) cases, AC was considered to I main reason for death. A total of 25 patients receiving no or only surgical AC therapy or with incomplete data therapy were excluded from univariate and multivariate analysis.



### AC stage, HIV/ART history of the patients

32% (35/111)	Stage II	42%	(47/111)
24% (27/111)	Stage IV	/ 2%	(2/111)
therapy (ART)			
	,	10% (12/12)	C)
		8% (10/12)	C)
		82% (98/12)	0)
D cp/ml on curre	nt ART	91% (86/94	4)
cp/ml on current	t ART	70% (66/94	4)
RNA < 50  cp/ml c	on ART	2.4 ± 2.2 (0.	2-9.0)
al and other par	rameters		
ange)		397 ± 249 (*	15-1210)
0/µI		20% (23/11	5)
s/µl (range)		125 ± 112 (3	3-462)
)0 cells/µl		50% (52/103	3)
ells, % (range)		19 ± 9 (4-40	)
	32% (35/111) 24% (27/111) <b>therapy (ART)</b> 0 cp/ml on current cp/ml on current RNA < 50 cp/ml of <b>a and other par</b> ange) 0/μl s/μl (range) 00 cells/μl cells, % (range)	32% (35/111) Stage II   24% (27/111) Stage IV   therapy (ART) Stage IV   therapy (ART) Stage IV   0 cp/ml on current ART Stage IV   and other parameters Stage IV   cange) Stage IV   0/µl Stage IV   s/µl (range) Stage IV   00 cells/µl Stage IV   cells, % (range) Stage IV	32% ( $35/111$ )Stage II $42%$ $24%$ ( $27/111$ )Stage IV $2%$ <i>therapy (ART)</i> $10%$ ( $12/12%$ $8%$ ( $10/12%$ $8%$ ( $10/12%$ $10%$ ( $12/12%$ $8%$ ( $10%$ ( $10%$ ( $12/12%$ $8%$ ( $10%$ ( $10%$ ( $12/12%$ $8%$ ( $10%$ ( $10%$ ( $12/12%$ $8%$ ( $10/12%$ $8%$ ( $10/12%$ $8%$ ( $10/12%$ $8%$ ( $10%$ ( $10%$ ( $10%$ ( $10%$ ( $10%$ ( $10%$ ( $10%$ ( $10%$ ( $10%$ ( $10%$ ( $10%$ ( $10%$ ( $12%$ )) $10%$ ( $1$



### Multivariate analysis (Outcome AC-/Non-AC-related deaths)

	HR (95 % CI)	p-value
Limited stage (I/II vs III/IV)	0.23 (0.07-0.77)	0.02
PS 0 (vs PS>0)	0.50 (0.15-1.71)	0.27
C+R (vs R)	0.64 (0.17-2.38)	0.51
Nadir CD4 > 100 cells/µl	0.46 (0.12-1.78)	0.26

PS=Performance Score, C+R = chemotherapy plus radiotherapy, HR = Hazard I

### Conclusions

- Currently, most cases of invasive anal cancer in the setting of only limited immune deficiency viral suppression.
- As in HIV-negative cases, clinical stage is predictive for overall survival.
- >50% of the patients had a history of condylomata!
- These findings emphasize the need for validated screening methods in all HIV-infected patients.
- With regard to treatment, radio-chemotherapy seems to be the treatment of choice.

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