

Prevalence of Previous or Concurrent High-grade Cervical Intraepithelial Neoplasia in Women with High-grade Anal Intraepithelial Neoplasia and or Anal Carcinoma

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Disclosures

- No financial relationships or conflict of interest to disclose

BACKGROUND

- Anal carcinoma is a rare cancer, but its incidence has risen by ~2.2% each year over the last ten years.¹⁴
- Estimated new 8200 cases of anal carcinoma in 2017, affecting more women than men with both disease and a higher mortality rate. ¹⁴
- There is scarce data on high-grade AIN and anal cancer from the larger percentage of the community of heterosexual males, non-HIV positive, or non-high risk women.
- Most information is generalized from data collected from men who have sex with men
- Few studies have been done on heterosexual women, the group most likely to be affected by anal carcinoma.
¹⁴

BACKGROUND

- Anal squamous cell carcinoma is thought to be preceded by AIN of different cytological and histological severity including AIN 1- mild, AIN 2- moderate, AIN 3-severe, similar to the CIN grading system. ¹⁶
- Human papilloma virus infection is the major causative agent in both CIN and AIN causing an estimated 80-90% of anal cancers. ⁴
- Majority of HPV infections will clear in healthy hosts-- anal dysplasia is more likely to resolve than cervical dysplasia; however, persistent anal dysplasia is a precursor to anal cancer. ¹³

RESEARCH OBJECTIVES

1. Determine prevalence of previous or concurrent high-grade CIN in women diagnosed with high-grade AIN or anal carcinoma
2. Determine prevalence of high risk HPV positivity in women with both high-grade cervical and high-grade AIN or anal carcinoma

METHODS

- Institutional review board approval
- Inclusion Criteria:
 - Adult female patients in the Grady Health System from January 1, 2006-December 31, 2015
 - Diagnosis AIN 2 or 3 or anal carcinoma
 - Documented Pap smear, colposcopy biopsy, or cervical excisional biopsy for diagnosis or treatment of cervical dysplasia
- Data analysis was completed by Morehouse School of Medicine Biostatistics Department.
- Descriptive statistics were used to summarize the data.
 - Mean with standard deviation was used for continuous variables and frequency with percentage was used for categorical variables.

RESULTS

Table 1. Characteristics of Women with High Grade AIN or Anal Carcinoma

Age (y)		n=53
	29-44	12 (22.6)
	45-54	27 (50.9)
	55-64	11 (20.7)
	65-74	2 (3.8)
	>75	1 (1.9)
Race		
	Black	52 (98.1)
	White	1 (1.9)
HIV status		
	HIV +	33 (62.2)
	HIV negative	20 (37.7)
Smoking status		
	Never a smoker	14 (26.4)
	Former smoker	13 (24.5)
	Current smoker	26 (49.1)

**Table 2: Prevalence of Previous or Concurrent
Cervical Intraepithelial Neoplasia**

High grade cervical dysplasia history		n=53
	Previous or concurrent history	16 (30.2)
	No history	37 (69.8)

Table 3. Characteristics of Women with High Grade Cervical and Anal Dysplasia or Anal Carcinoma

Age (y)			n= 16
	29-44		2 (12.5)
	45-54		11 (68.8)
	55-64		3 (18.6)
	>65yo		0 (0)
Race			
	Black		16 (100)
	White		0 (0)
HIV status			
	HIV +		14 (87.5)
	HIV negative		2 (12.5)
Smoking status			
	Never a smoker		4 (25)
	Former smoker		3 (18.75)
	Current smoker		9 (56.25)

Table 4: Prevalence of High Risk HPV Positivity in Women with Previous or Concurrent High-grade Cervical Dysplasia

HPV status		n=16
	HPV +	5 (31.3)
	HPV negative	4 (25)
	HPV unknown	7 (43.7)

DISCUSSION

- Strengths
- Limitations
 - Socioeconomic demographics such as sexual practices, income, education level, etc. could not be found
 - Time between risk factor to disease is difficult to ascertain
 - Results were limited by a large number of unknown HPV statuses
- Because 87.5% of those with high grade cervical dysplasia were also co-infected with HIV; therefore:
 - Women who have not yet been screened for HIV should be tested.
 - There is a definite role for screening HIV-positive women for both cervical and anal dysplasia

CONCLUSIONS

- Currently, there are no standardized guidelines to screening for anal dysplasia or carcinoma.
- There have been no randomized clinical trials to show the efficacy of any type of screening for anal cancer.
- Few studies on high-grade AIN and anal carcinoma have been done on women.

FUTURE DIRECTIONS

- Prospective study on incidence of high-grade AIN or anal carcinoma in women who present with high-grade CIN.

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QUESTIONS?