Beyond cervical cancer: gynecological malignancies and treatment in HIV+ women

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BACKGROUND

- HIV infected women are at a greater risk for HPV-associated gynecologic malignancies including cervical and vulvar cancer
- Rates of other gynecologic malignancies (ovarian, endometrial and breast) are rising due to the increased life expectancy related to widespread and effective use of antiretroviral therapy (ART)
- Prior studies suggest that HIV+ individuals may be less likely to receive appropriate and guideline-adherent treatment for their cancer
- Effective cancer treatment may be reduced due to patient factors including co-morbidities, clinical status, or social constraints, and/or physician factors which may include concerns about excessive morbidity from treatment in this population
- Prior studies of non-AIDS defining gynecologic malignancies predate the adoption of ART and standardized cancer treatment guidelines

OBJECTIVES

- Characterize **contemporary trends** in care of HIV-infected women with gynecologic malignancies
- Characterize **patterns of disease** in HIV-infected women with gynecologic malignancies
- Evaluate **adherence to national treatment guidelines** of gynecologic cancer care
- Describe **obstacles to cancer treatment** in our urban patient population to guide future care and advocacy

METHODS

- Inclusion Criteria:
  - Patients with invasive gynecologic cancers, including endometrial, ovarian, breast, cervical, vulvar, and anal cancer
  - Patients diagnosed at JHH
  - Patients diagnosed between1997-2015
  - Patients ≥ 18 years old
- Clinic Records and Billing Codes were utilized to identify patients meeting the inclusion criteria
- Chart reviews were performed to obtain: **demographics**, **HIV-related data**, **Medical comorbidities, and cancer and treatment-related information**
- Demographic characteristics of the cohort were calculated
- Cancers were divided by HPV-related and non-related types
- Trends in diagnoses by year and stage were evaluated
- Treatments received were compared to NCCN guidelines and determined to be NCCN adherent or non-adherent

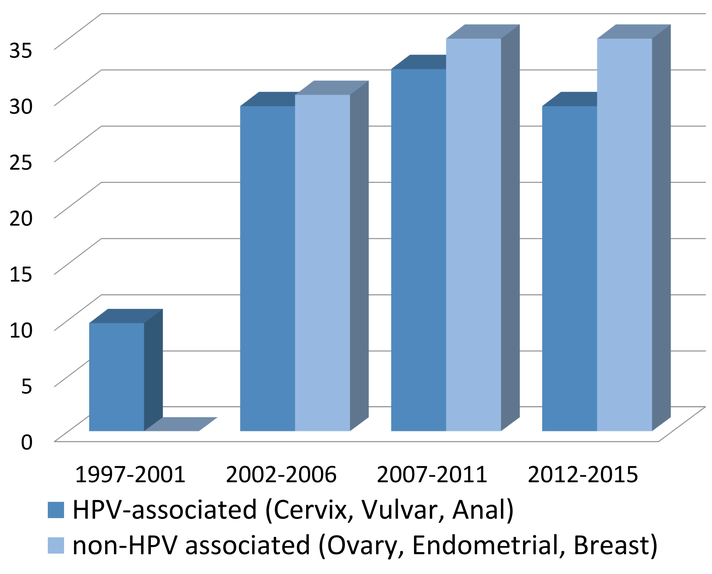
RESULTS

Characteristics the 51 HIV+ cancer cases		
At Diagnosis	**Median**	**Range**
Age (years)	46	25-83
BMI (units)	27.4	18.6-43.3
Years Since HIV Diagnosis	10	0-35
CD4 (count)	364	13-758
Viral Load (count)	50	Undect-750k
	Number	**Percent**
Race		
Black	39	76.5
White	12	23.5
Medical Co-morbidities		
Heart Disease/Hypertension	23	45.1
Liver Disease	14	27.4
Respiratory Disease	10	19.6
Renal Disease	8	15.7
Endocrine Disease/Diabetes	6	11.7
Cancer Type		
Cervix	18	34.7
Vulvar	11	21.1
Anal	2	3.8
Breast	8	15.4
Uterus	6	11.5
Ovary	6	11.5

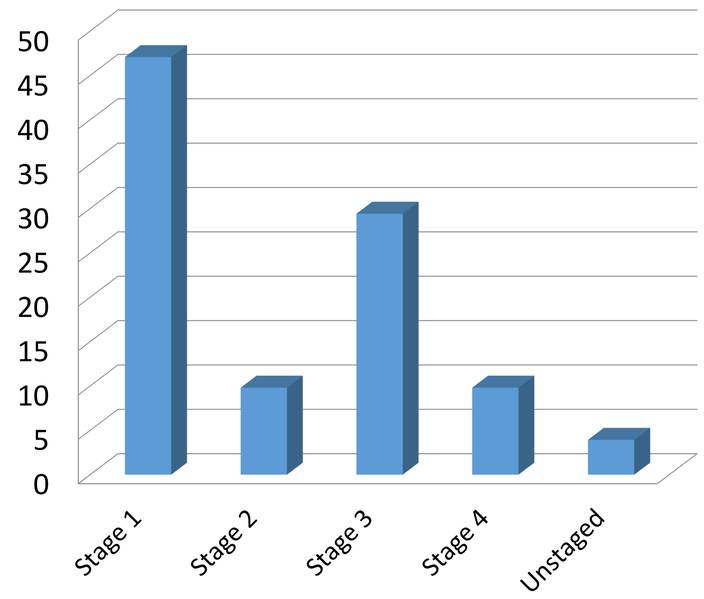
In this cohort:

- Median time between diagnosis of HIV and gynecologic cancer was 10 years
- **76% of women identified as black**
- 45% of women also had hypertension or heart disease
- **60% of women had HPV-associated, lower genital tract cancers**
- **40% of women had non HPV-associated gynecologic cancers**

Cancer Diagnosis by Year and Type (% of total)



Cancer Distribution by Stage (% of total)



- Incidence of HPV-associated gynecologic cancers peaked in 2007-2011 and then decreased
- Incidence of non HPV-associated gynecologic cancers continued to increase over 18 years
- **52% of patients presented with early stage disease** (stage 1 or 2)
- **48% of patients presented with advanced disease** (stage 3, 4 or unstaged)

Treatment for HIV and cancer		
	Number	**Percent**
Antiretroviral Therapy		
Yes	40	78.4
No	8	15.7
Unknown	3	5.9
Cancer Treatment		
Surgery	40	78.4
Chemotherapy	9	17.6
Radiation	18	35.3
None	1	2.0
Not Specified	2	3.9
NCCN-adherent Care		
Yes	43	84.3
No	8	15.7

- 78% of women were on antiretroviral therapy at the time of cancer diagnosis
- Primary treatment:
  - 78% of women underwent surgery
  - 17% of women received chemotherapy
  - 35% of women received radiation therapy
- **16% of HIV+ patients did not receive NCCN-adherent care** (8/51) for primary treatment of gynecologic cancer
- **63% of patients who received care that was not adherent to NCCN guidelines presented with advanced disease** (5/8)
- **90% of patients with early stage disease received NCCN adherent care** (26/29), **75% of patients with advanced stage disease received NCCN adherent care** (17/22) **p=0.24, *ns***.

BARRIERS TO CARE

- Stage 1 cervical cancer patient who received no treatment nor radiation due to severe cardiac disease
- Stage 2 breast cancer patient who self discontinued hormonal therapy
- Stage 3 ovarian cancer patient died postoperatively due to dehiscence and resulting complications
- Stage 3 endometrial cancer patient died following first cycle of chemotherapy due to presumed severe allergic reaction
- Stage 3 vulvar cancer patient lost to follow up following incarceration
- Stage 3 vulvar cancer patient discontinued treatment due to severe thrombocytopenia with chemosensitizing radiation and loss of insurance

CONCLUSIONS

With aging of the HIV population, gynecologic malignancies, including those which are not HPV-related, are increasing

- Our findings highlight factors impacting cancer delivery in HIV-infected women in an urban population
- **While the majority of women received at least some form of cancer treatment, there is a trend towards *lower rates* of NCCN-adherent care in patients with advanced stage disease**
- HIV-infected women with gynecologic malignancies have unique challenges to care
  - Data on HIV-uninfected cancer patients are currently being abstracted to compare receipt, type and barriers to treatment and adherence

Funding: Johns Hopkins University Center for AIDS Research (1P30AI094189)

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