

Poster 45: Relative Incidence of Uterine Cancer in Black Patients Compared to White Patients in the US

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Topic: Uterine

Objectives

To identify the incidence rate ratio of uterine cancer in Black patients compared to White patients diagnosed with uterine cancer in the United States.

Methods

Data were obtained from the United States Cancer Statistics (USCS) program. SEER*Stat 8.3.8.9.2 and Joinpoint regression 4.9.0.0 were used to calculate trends using average annual percent change (AAPC). Age-adjusted and hysterectomy corrected incidence was used to calculate the rate ratio of uterine cancer. The incidence rate ratio (IRR) is the unrounded rate in Black patients divided by the unrounded rate in White patients.

Results

Between 2001 and 2019, 785,921 Black and White patients were diagnosed with endometrial cancer. Of those, 573,934 (73%) were endometrioid histology (91% White, 9% Black,) and 101,176 (13%) were serous, clear cell, or carcinosarcoma (high-risk histology) (74% White, 26% Black), and 14,809 (2%) were leiomyosarcoma (73% White, 27% Black). The incidence rate ratio (IRR) of uterine cancer in Black patients as compared to White patients is 0.95 (95% CI 0.94-0.96). For endometrioid type, the IRR is lower in Black patients as compared to White patients (0.63, 95% CI 0.63-0.64). However, the IRR of non-endometrioid type is higher; 2.72 (95% CI 2.67-2.78) for serous, 2.03 (95% CI 1.94-2.13) for clear cell, 2.79 (95% CI 2.73-2.85) for carcinosarcoma, and 2.31 (95% CI 2.23-2.4) for leiomyosarcoma. Compared to White patients the IRR in carcinosarcoma and serous histologies peaks in Black patients at age 60-64, and IRR in clear cell histology peaks at age 70-74. However, there was no age-group associated peak in leiomyosarcoma although the IRR is more than 2 fold higher at baseline compared to White patients. From 2001 to 2019, the IRR disparity gap in Black patients continues to increase. When analyzing the change in RR for Black patients from 2001 to 2019, the IRR increased the most for clear cell from 0.94 to 1.48 (57%), followed by 1.35 to 2.04 (51%) for serous carcinoma, 1.63 to 2.28 (40%) for leiomyosarcomas, 0.38 to 0.52 (37%) for endometrioid histologies, and 1.46 to 1.95 (34%) for carcinosarcoma. In 2019, the intersection of Black patients ages 55-59 with serous uterine cancer had the highest IRR at 4.76. (95% CI 3.8-5.97).

Conclusions

Compared to White patients, the incidence rate ratio for high-risk histology uterine cancer is over 4 fold higher in Black patients; particularly those with serous histology. This disparity gap has continued to widen over the last 20 years. Further research is needed to understand the cause of these findings, including environmental impact or social determinants of cancer.

Abstract Table or Graph

