Poster 8: The lower incidence of uterine cancer in Asians compared to other minority groups: is diet the protective factor?

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Topic
Endometrial

Objectives
To examine the disparities in the incidence of endometrial cancer amongst minority women and their dietary differences using two comprehensive national databases.

Methods
Data on endometrial cancer was extracted from the United States Cancer Statistics (USCS) database from 2001-2021. Data on dietary consumption including total fat, total saturated fat, total cholesterol, total sugar, and total protein intake were collected from the National Health and Nutrition Examination Survey (NHANES) database from 2001-2018. Average annual percentage changes (AAPC) were used to describe trends. SEER*Stat 8.3.9.2 and Joinpoint regression program 4.9.0.0 were used for statistical analysis. A p value of < 0.05 was considered statistically significant.

Results
Using USCS data, 955,025 women were diagnosed with endometrial cancer from 2001-2021. Of these women, 76.0% were White and 22.7% were minority populations comprising 3.6% Asian, 8.8% Hispanic, and 10.3% Black. The incidence of endometrial cancer (per 100,000) in Asian women was 22.19 compared to 26.62, 26.43 and 28.39 in White, Hispanic, and Black women, respectively. In the last 20 years, the AAPC in uterine cancer across all women was 0.82% per year ($p< 0.0001$). Using the NHANES database, total fat and cholesterol increased from 2001-2018 with an AAPC of 1.04% per year ($p=0.0332$) and 1.17% ($p=0.0386$), respectively, whereas sugar consumption has decreased over time with an AAPC of -1.87% ($p=0.0036$). Asian women were identified to consume the lowest amount of cholesterol compared to Hispanic and Black women (Asian: 235.9g, Hispanic: 277.5g, Black: 266.3g, $p< 0.0001$). Total fat and saturated fat intake were also lower in Asian women compared to Hispanic and Black women (Asian: 61.9g, Hispanic: 72.9g, Black: 76.2g, $p< 0.0001$) and (Asian: 18.7g, Hispanic: 23.4g, Black: 23.7g, $p< 0.0001$), respectively. Furthermore, Asian women were identified to consume less sugar compared to Hispanic and Black women (Asian: 79.7g, Hispanic: 99.7g, Black: 107.8g, $p< 0.0001$). Compared to minority populations, white women consumed 242.1g of cholesterol, 74.0g of total fat, 24.3g of saturated fat, and 98.2g of sugar ($p< 0.0001$).

Conclusions
There are significant dietary differences in total cholesterol, total fat, saturated fat, and total sugar consumption amongst different racial and ethnic groups. These differences in diet, coupled with the differing incidence of uterine cancer in these populations, particularly Asian women, warrant further investigation.