

“Uterine Sarcoma Care in a Disaster-Prone Region: Treatment and Presentation Patterns in Louisiana, 2000–2023”

Colette Rainey B.S, Tasnia Monir B.S, Kenny Nguyen B.A, Emma Hillberry B.S, Amma Agyemang, MD, PhD, Amelia Jernigan M.D, Tara Castellano M.D

OBJECTIVE: Uterine sarcomas are rare, aggressive tumors with poor prognosis even when confined to the uterus. In disaster-prone regions, such as South Louisiana, disruptions to healthcare affects timely diagnosis, delivery of treatment, and continuity of care. However, relationships between natural disasters and socioeconomic factors on patterns of uterine sarcoma care have not been well defined. Our goal is to determine if periods of natural disasters are associated with differences in stage at diagnosis, treatment, and patterns of care among patients with uterine sarcomas.

METHODS: This retrospective cohort study identified patients through Louisiana’s Tumor Registry. De-identified data containing patients’ age at diagnosis, insurance status, race/ethnicity, tumor details, out of state referrals, and treatments were collected and stored in a HIPAA-compliant database. Patients were categorized based on diagnosis during selected natural disasters versus other years. Summary statistics highlighted associations between stage at diagnosis, treatment patterns, out-of-state care, sociodemographic factors, and disaster associated periods.

RESULTS: Our population consists of 153 patients with uterine sarcomas identified from 2000 to 2023: 77, (50.3%), of patients were Black and 73, (47.7%), were White. Leiomyosarcoma accounted for 117, 76.5%, of cases, and 72, 47.1%, of patients presented with distant-stage disease. Surgery was recorded in 105, 68.6%, of patients, chemotherapy in 68, 44.4%, radiation in 30, 19.6%, and 24, 15.7%, had documented out-of-state care. There was a significantly association between stage and treatment, being that early-stage patients were more likely to undergo surgery and late-stage patients were more likely to receive chemotherapy. Radiation use did not differ by stage. Insurance coverage differed significantly by race. Black patients were more frequently covered by Medicaid or uninsured. However, race was not associated with stage, treatment, out-of-state care, or class of case. Natural-disaster-associated years, 2005, 2012, 2019, and 2021, did not significantly differ from other years in race, insurance, stage, grade, treatment, or class of case. In 2019, 50% of patients were diagnosed and treated elsewhere compared with 24.1% in other years. No radiation was recorded in 2019 or 2021.

CONCLUSIONS: Despite Louisiana’s vulnerability to natural disasters, there were no aberrant treatment patterns according to stage. Further, there are no significant differences in uterine sarcoma stage or treatment patterns during disaster-associated years. These findings suggest that major disruptions were not captured at the registry level, highlighting the need for more detailed referral and location specific treatment data.

Characters (including spaces): 2,781