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“Referral Patterns of Uterine Sarcomas in South Louisiana”

OBJECTIVE: Uterine sarcomas are rare, aggressive tumors with poor prognosis even when confined to the uterus; while early stages of cancer can be cured with surgery, advanced stages require additional therapies to reduce recurrence. Following surgery, referral to uterine sarcoma specialists is critical to guide recommendations and possible targeted therapies, but in Louisiana, high poverty rates contribute to disparities in access to such care. Our goal was to identify risk factors associated with advanced versus earlier presentation of uterine sarcomas, and to determine the factors linked to barriers in specialist referral and/or receipt of indicated specialized tumor testing in South Louisiana.

METHODS: This is a retrospective study cohort study. Patient were identified through a large GYN cancer database. All uterine sarcomas were included with irrespective stage and histology. Patient demographic, cancer information, and selected outcomes were collected in HIPPA compatible *REDCap*. Summary statics were performed to test for association between patient stage and referral pathway. Data on patient factors and cancer factors were tested to establish association with certain socioeconomic, racial or ethnic to who successfully received specialized sarcoma care

RESULTS: Our study identified 14 patients with uterine sarcomas: 11 African American, (79%), and 3 White (21%). The average age of the population was 62 years old with an average BMI of 32, obese. Of these, 8 were diagnosed with stage I, (57%), 2 at stage II-III, (14%), 4 at advance stage IV or inoperable, (29%). Uterine biopsies were performed on 14 patients, (100%), where 11 were placed by OBGYN/OBGYN oncologist, (79%), and 3 were placed in outpatient (27%). Despite the diverse histologies and patient population, 0 patients received a referral to a sarcoma specialist. The most common referrals in South Louisiana were to University Medical Center, with an average travel distance from the patients' residence was 51 miles. Total hysterectomies were performed on 11 patients, (79%), a bilateral salpingo-oophorectomy on 9 patients, (64%), and a lymphadenectomy on 1 patient, (7%). In addition to surgery, 7 patients received radiation therapy, (50%), 5 received hormone therapy (36%), and 12 received chemotherapy (86%). Risk factors, such as smoking, alcohol, and BMI, showed no significant difference on the patients' cancer in our data set ($p=0.05$). Of the 3 White patients, (21%), all patients were insured through Medicaid/Medicare, (100%). Of the 11 of African American patients, (79%), 6 had private insurance, (55%), and 5 were insured through Medicaid/Medicare, (45%). We found that 6 patients, (43%), experienced reoccurrence of their cancer after treatment had Medicaid/Medicare, and reoccurrence existed in 3 White, (100%), and 3 African American patients, (21%). Comparing reoccurrence by stage, 3 patients with early stage, (30%), and 3 advance stage, (75%), tumors showed no statically significant difference in their outcome ($p=0.05$).

CONCLUSION: Based on our small study of sarcoma patients in South Louisiana we found that there were no identifiable risk factors according to race or insurance status that directed referral, practice and recurrence patterns. These findings highlight that a lack of healthcare resources effects all patients in similar patterns in this unpredictable and potentially aggressive cancer.