LOCAL CONTROL OF THYROID CANCER METASTASES WITH STEREOTACTIC BODY RADIATION THERAPY

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Background/Purpose: This study examines local control rates obtained with SBRT treatment of metastases in patients with metastatic thyroid cancer at the Mayo Clinic
Methods: We retrospectively evaluated 23 patients with metastatic thyroid cancer treated with SBRT to 34 metastatic sites between 2008 and 2012 at the Mayo Clinic. Most of these sites were symptomatic (pain or cord compression most commonly). The patients were between 33 and 80 years old at the time treatment (mean age 62); Histology was anaplastic (4 pts), follicular (3), Hurthle cell (6), medullary (1), papillary (9). The patients were initially diagnosed between 1983 and 2011.
Results: Median survival from initial diagnosis was >45 months for anaplastic, >79 months for follicular and 232 months for papillary histology. Five patients have died since their SBRT treatment. There were no deaths among the Hurthle cell and medullary patients. Local progression free survival (lPFS) at the SBRT sites was evaluated for the entire cohort and for several subsets. For the entire cohort, the median lPFS at the sites treated with SBRT was 29 months. For anaplastic histology, it was >5.6 months, for follicular, >4.5 months. Median survival was not reached for either Hurthle cell or papillary histologies. Using the log-rank test, there is no significant difference in local control between any of the histological subgroups.
Discussion & Conclusion: SBRT can provide lasting local control for symptomatic metastases in patients with thyroid cancer.