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Ultrasound-Guided Percutaneous Ethanol Ablation for Loco-Regional Recurrence of Medullary Thyroid Cancer



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BACKGROUND: Medullary thyroid cancer (MTC) often presents recurrence and persistent disease. Surgery is considered the gold standard for management, but ultrasound guided percutaneous ethanol ablation (UPEA) is an alternative treatment.

METHODS: Single-center retrospective(2000-2017). Patients undergoing surgery and UPEA for loco-regional recurrence of MTC were reviewed. Basic demographics, treatments and overall survival were noted.

RESULTS: 48 patients were identified and six underwent UPEA. Four of those had UPEA as first line treatment for recurrence, and two after a second loco-regional recurrence. Mean age of the UPEA cohort was 51.16 ± 17.89 years, vs 51.35 ± 16.32 , $P=0.9$. 66% of the UPEA cohort were men vs 57%, $P=0.9$. Pre-procedural calcitonin were similar, 4505 ± 8655.44 pg/mL for UPEA and 1461 ± 2289.79 pg/mL for the operative cohort, $P=0.78$. Five patients underwent two consecutive UPEA sessions, averaging 1.7 lymph nodes ablated with of 0.9 mL of ethanol in each session. All patients had good response on imaging after UPEA and no immediate or long-term complications. Two patients (33%) presented loco-regional recurrence after UPEA and required further surgery. The decline in calcitonin levels when compared to pre-procedural levels were similar, -154.2 ± 116.87 pg/mL for PEA vs -154.2 ± 116.87 pg/mL, $P=0.1$. Five-year overall survival was 62% for the UPEA group vs 80% $P=0.88$.

CONCLUSION: There is little experience with ultrasound guided ethanol ablation for loco-regionally recurrent MTC. It can be a reasonable treatment when utilized appropriately. It is a safe procedure that can have a durable biochemical and structural response. More experience and research is needed to better define its role.

ABSTRACT ID: 46