SENTINEL LYMPH NODE BIOPSY (SLNB) IN MEDULLARY THYROID CANCER (MTC)

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Background/Purpose: There are numerous publications and two meta-analysis regarding efficacy and benefits of SLNB in papillary thyroid carcinoma, but there were no publication dealing with SLNB in medullary thyroid carcinoma up to date.
We are presenting our technique of sentinel lymph node biopsy in a 60 year old euthyroid female patient with medullary thyroid carcinoma 12 mm in diameter in the left lobe. MEN syndrome was excluded. Patient did not show metastatic lymph nodes based on ultrasonography and clinical exam (N0) in the central and lateral neck regions.
Methods: The patient was operated in December 2011. due to tumor in the left lobe with high preoperative calcitonin value 697 pg/ml.
Intraoperatively we injected 0.2 ml 1% methylene blue die in the left lobe.
We first sampled two coloured sentinel lymph nodes in the left lateral region between regions III and II and frozen section showed no metastases.
It is very important to remove lymph nodes between levels II and III on the side of tumor due to tumor localization between upper and middle third of the lobe.
We performed modified radical neck dissection (MRND) on the left side.
Results: Hystopathology confirmed medullary thyroid carcinoma in the left lobe 12x10 mm in diameter with signs of Hashimoto thyroiditis in both lobes.
Postoperative scintigraphy with DMSA showed no fixation (0%).
Postoperatively calcitonin level was 0.3 pg/ml.
Discussion & Conclusion: We have ongoing prospective study dealing with SLNB for patients with MTC who have calcitonin level under 2000 pg/ml.
We can conclude that this is a promising method to avoid MRND in well selected patients with MTC and preoperative calcitonin level under 1000 pg/ml with negative sentinel lymph nodes.