Usefulness of Sentinel Lymph Node Biopsy of Contralateral Neck Region in Papillary Thyroid Carcinoma

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Abstract

Here, we present a 9-year-old male boy admitted at the Institute for Oncology and Radiology of Serbia due to enlarged lymph node in the left lateral neck region and palpable tumor in the upper pole of the left thyroid lobe. Clinically and sonographically, there were no metastases in the right jugulo-carotid chain, but the lymph nodes in the central pretracheal neck compartment and left jugulo-carotid chain were metastatic. Chest X ray, abdominal ultrasound, and laryngoscopy findings were normal. After injection of 2 mL of methylene blue dye in the normal right lobe, we accessed the right lateral neck region and the colored sentinel lymph node was removed, which was proven to be metastatic on frozen section analysis. Then, we explored entire thyroid gland and there were no nodules in the right lobe. The left lobe was explored and tumor was verified, which was in close contact to the infrahyoid muscles. We performed left lobe isthmectomy by shaving off left lobe from trachea. Three foci of papillary carcinoma were found in the upper pole of left lobe 11 mm, just below 6 mm, and in isthmus region focus of 6 mm. We proceeded with the removal of the right lobe and central lymph nodes, including Delphian, which was metastatic,

pretracheal, right paratracheal, and the lymph nodes behind the right recurrent laryngeal nerve down to the aortic arch. Upper mediastinal lymph nodes were removed. In the central neck region and upper mediastinal compartment, 15 lymph nodes were removed and 11 were metastatic. Right modified radical neck dissection from region two to four was performed. Twenty-one lymph nodes were examined, 5 were metastatic, including the sentinel lymph node. Left modified radical neck dissection, from level IIB to V, was performed on two incisions, which enabled reaching left level II and common carotid artery bifurcation. Left lateral lymph nodes were removed in one piece, berry picking must be avoided. Of 21 removed lymph nodes, 5 were metastatic in the left lateral region. A total of 57 lymph nodes were removed and 21 were metastatic. We showed the necessity and usefulness of sentinel lymph node biopsy of contralateral neck region by injecting vital dye in the normal right lobe. We confirmed the presence of metastases in a patient with clinically and sonographically negative lymph nodes.

All authors declare no conflict of interest.

Runtime of video: 10 mins

Cite this video

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