Among node-positive patients, the recurrence rate following D2 was significantly lower than that after D1. Among node-negative patients, there was no difference in recurrence rate between two groups. Miwa therefore suggests that we should always dissect the lymphatic basins even in cases with no sentinel node metastasis. In addition, patients with sentinel nodes containing metastasis should be treated with the D2 procedure (7).

Aikou et al. also stated that wide and complicated lymphatic stream from a gastric tumor contributed to the relatively high (23%) incidence of micrometastases and the frequent occurrence of skip metastasis (10).

A similar view was reported by Kosaka et al. Namely. According to their survey, not every sentinel node is located in the perigastric region near the primary tumor and that, if the preoperative examination indicates submucosal invasion, then a systematic regional lymph node dissection should therefore be carried out (11). Kosaka reports skip metastases in 15% of 51% patients with gastric cancer (11).

Finally, according to Maruyama opinion, the ability to identify a tumor free SN might enable the surgeon to avoid the morbidity associated with radical lymphadenectomy in patients with gastric cancer (12). But he concludes that it is too early to apply sentinel node biopsy for reducing the extent of lymphadenectomy for gastric cancer because of the complicated anatomy of lymphatic streams from the stomach, and because of the frequent skip metastasis and micrometastasis (12).

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tumors. There were 5 cases of papillary thyroid carcinoma (one in thyroidos- sal duct cyst), 1 Hurtle cell carcinoma, 7 follicular adenomas and 1 Hashimoto thyroiditis. All except one (Patent Blue V) were stained with Metilen Blau dye (mean 0.5ml/per injection). SLN identification rate was 72% (the staining failed in one case of follicular adenoma, 1/14). In all cases of malignancy and follicular lesions on frozen section histopathology, after frozen section of SLN, the dissection of central and/or lateral (jugular) lymph nodes were performed. All SLN were examined both by frozen section and HE definitive histopathology. SLN were located in cervico-central basins in 12 of 14 cases. In 1 case of follicular adenoma SLNs were first found in jugular basin ("skip") and in a case of papillary carcinoma in the thyroglossal duct cyst, SLNs were found in the level of carotid artery bifurcation bilaterally. We found no false-positive or negative results on HE definitive examination.

The impact of lymph node metastases in differentiated thyroid carcinoma is still controversial. Most of the relevant studies have shown no impact on long-term outcome (13,13). Presence of cervical lymph node metastases increases the regional relapse risk (14, 15).

The management of cervical lymph nodes varies from “berry picking” to modified radical neck dissection. There is no argument of the necessity of neck dissection in cases of clinically enlarged lymph nodes. There is a significant disproportion in percentage of pre- and intraoperatively enlarged lymph nodes (27-45%) and histologically confirmed micro-metastases (80%-90%) in papillary thyroid carcinoma. Explanation for this could be in elective lymph node examination performed by experienced surgeons (16-21). The frequency of true lymphatic metastases from follicular thyroid carcinoma to regional lymph nodes is extremely unusual, being less than 1% (22).

Between 15% and 75% of all medullary thyroid carcinoma (MTC) cases have spread to the lymph nodes at the time of diagnosis. For this reason, Clark advocates a formal modified radical neck dissection for any lesion greater than 2 cm on the side in which it is located with a central node dissection on the contralateral side (23). Keleman and coworkers published that in 2 of 17 cases colored SLN were retrosternal and so invisible intraoperatively using only blue dye (7). The group of Japanese authors claims that concordance between the SLN findings and regional lymph node status on definitive histopathology was 90.5%. Two of 22 patients had negative SLN and positive non-SLN nodes. The overall reliability of the method was 86.3% (11). Arch-Ferrer analyzed the accuracy of HE and immunohistochemistry staining and found 60% and 100% accuracy, respectively (24). Pelizzo reported 75.9% located SLN using only Patent Blue V dye. He found no false negative results after examination of both SLN and NSLN node (12). The group from Salzburg failed to detect SLN in cases with follicular carcinoma of the thyroid using both preoperative lymphoscintigraphy and intraoperative hand-held gamma probe (10). The group form University of Rome “La Sapienza” used the combination of all three methods of lymphatic mapping in papillary thyroid carcinoma, and showed 100% accuracy all together. Considering one method alone, identification rates were 66%, 50% and 83% for preoperative lymphoscintigraphy, vital dye and gamma probe scanning respectively (9).

In the current literature the average rate of SLN identification is 91% (66-100%) and when identified, the SLN accurately predicts the disease status of the neck in most patients (80%-100%). Limitations of SLN biopsy on thyroid cancer include staining of parathyroid glands, draining to medistinum "shine through" effect (25). The SLN biopsy for thyroid carcinoma is good and feasible technique for estimating the cervical lymph node status. It is now necessary to check the diagnostic accuracy of this procedure through controlled trials involving a more extended lymph node dissection in the neck. The clinical significance of this technique in thyroid cancer remains to be determined.

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