

RELATIONSHIP BETWEEN MULTIFOCAL PRIMARY LESIONS AND NECK LYMPH NODE INVOLVEMENT IN PATIENTS WITH PAPILLARY THYROID CANCER

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Background/Purpose: There are only a few studies investigating the relationship between multiple intrathyroidal primary (multifocal) lesions and neck lymph node involvement in patients with papillary thyroid cancer (PTC). The objective of this study is to determine the relationship between multifocal lesions and neck lymph node involvement in patients with PTC.

Methods: A systematic retrospective study of 2034 patients presenting with PTC from 2007 to 2009 at a university-based tertiary cancer hospital was conducted. The effects of the independent variables of sex, age at diagnosis, tumor size, subtype of PTC, and presence of multifocal on the risk of the neck lymph node involvement was determined.

Results: Of the total study population, 1540 (75.72%) patients had only one cancer lesion in the thyroid, while 494 (24.28%) patients had the multifocal lesions, which was a risk factor for level VI lymph node involvement (OR 8.656; 95% CI 6.441-11.633) and for lateral neck lymph node involvement (OR 4.364; 95% CI 3.484-5.476) in patients with PTC. During a 23.5 ± 8.9 months follow-up, the patients with multifocal lesions had a high probability of local recurrence.

Discussion & Conclusion: The presence of multifocal lesions is a risk factor for neck lymph node involvement in patients with PTC. It suggests that PTC patients with multifocal lesions should be given routine prophylactic level VI dissection, and when these patients have a clinical suspicion of lateral neck metastases, level V should be included in the neck dissection.