THE EFFECTS OF FOCALITY/LATERALITY/TOTAL TUMOR DIAMETER/TUMOR NUMBER ON PROGNOSIS OF PAPILLARY THYROID CARCINOMAS

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Objectives: Controversial results about multifocality of papillary thyroid carcinoma (PTC) has been reported. This study investigated the relationships between clinicopathological/molecular features with focality, laterality, total tumor diameter (TTD) and tumor number in PTCs.

Materials and Methods: 706 patients with PTC [including 406 papillary microcarcinomas (PTMCs)] were included in the study. TTD was calculated as the sum of the largest diameters of tumor foci in multifocal tumors and was grouped according to three different cut-off values [10mm, 11mm (the cut-off value for TTD predicting LNM in the group), 20mm].

Results: Multifocality was present in 46.1% and bilaterality was detected in 34.1% of the group. The results (p< 0.005) were as in the following. Multifocality related with older age, larger primary tumor diameter (PTD) and radioactive iodine therapy (RAI) in PTCs and related with lymphovascular invasion (LVI), extrathyroidal extension (ETE), RAI and lymph node metastasis (LNM) (p>0.005) in PTMCs. Comparisons of laterality and focality according to PTD revealed higher recurrence rates in multifocal or bilateral or bilateral-multifocal PTCs with PTD>10mm. The increase in tumor foci associated with bilaterality, larger PTD, LVI, ETE and RAI in PTMCs. TTD larger than at least 10mm related with multifocality, LVI, perineural invasion, LNM, ETE, RAI, BRAFV600 mutation, recurrence and aggressive histology in PTCs. LVI, ETE, bilaterality, and RAI were more common in PTMCs with TTD >10mm or >11mm and LNM was more common in PTMCs with TTD>11mm (p>0.005). Conclusions: Multifocal PTMCs with TTD larger than at least 10mm did not differ from unifocal PTCs with PTD>10mm in terms of prognostic parameters except older age, LVI and RAI. So, awareness of recurrence in multifocal and bilateral PTCs with PTD>10mm and recommendation of similar strategies for multifocal PTMCs with TTD>10mm or >11mm as unifocal PTCs>10mm in practical guidelines may be a more appropriate clinical management.
Anahtar Kelimeler: Papillary thyroid carcinoma, multifocality; bilaterality, total tumor diameter, number of tumor foci