



TREATMENT, FOLLOW UP AND PROGNOSTIC FACTORS OF PAPILLARY MICROCARCINOMA



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INTRODUCTION:

➤ Papillary thyroid microcarcinoma (PTMC) is the most frequent form of papillary thyroid carcinoma (PTC).

➤ Incidence rate of papillary thyroid microcarcinoma (PTMC) has almost doubled during the recent years but treatment and follow up is still a matter of debate.

➤ In this study we aimed to analyze clinical and histopathological risk factors at the time of diagnosis and to observe their implications for treatment, follow up and prognosis.

PATIENTS AND METHODS:

➤ Two hundred forty-eight patients were included in this study between January 2007 and November 2012. They were all evaluated in the outpatient clinic of Ankara Atatürk Education and Research Hospital Endocrinology Department with the diagnosis of nodular goiter.

➤ The age, sex, the method of diagnosis (incidental or with a clinical suspicion), cervical lymph node metastases and relapse and/or distant metastases during follow up were retrospectively recorded.

RESULTS:

➤ Two hundred one were female and 47 were male. Total thyroidectomy was performed in all patients. All of the patients had postsurgical radio-iodine ablation treatment. When compared according to tumor size (≤ 5 mm vs > 5 mm), bilateral involvement, vascular invasion, capsular invasion, extrathyroidal extension and lymph node metastases were significantly more frequent in the patients with tumor size > 5 mm (p values $p < 0.046$, $p < 0.021$, $p < 0.001$, $p < 0.003$, $p < 0.000$ respectively).

➤ Diagnosis after a clinical suspicion and thyroglobulin (TG) value were found to be associated with lymph node metastases at the end of the multiple logistic regression analysis. (Table 2)

Table 2: Multivariate regression analysis of factors that may affect the evaluation of lymph node metastasis

	B	p	%95 CI	
Tumor size	1.172	0.607	0.640	2.146
TG	1.083	0.011	1018	1152
Diagnosis	0.095	0.043	0.010	0.928
Capsule invasion	1.359	0.740	0.223	8.281
Vascular invasion	0.181	0.317	0.006	5.146
Multifocality	1.259	0.865	0.89	17.881

➤ The relevant TG value was 7.98 ng/ml with a sensitivity of 57.14 % and specificity of 83.17 % [Positive predictive value (PPV): %19, negative predictive value (NPV): %96.6]. Relapse was associated with TG value and lymph node metastases at the time of diagnosis. Tumor size which predicts relapse was 6 mm with a sensitivity of 50 % and specificity of 76.37 % [PPV: 8.2 %, NPV: 97.3 %].

CONCLUSION:

➤ Local relapse and lymph node metastases are more frequent in patients with a tumor size of more than 6 mm or stimulated serum Thyroglobulin (TG) levels in post thyroidectomy period of more than 7.98 ng/ml.

➤ Local relapse is significantly associated with lymph node metastases at the time of diagnosis. Regarding the treatment of PTMC our approach is to perform total/near total thyroidectomy and than RAI treatment.

➤ We think that the low relapse in this study is related with our therapeutic approach. On the other hand, PTMC should not be regarded as a relatively benign disease when our patients with lymph node metastases, local relapse and distant metastases were taken into consideration.

Table 1. Clinical and pathological factors for worse prognosis by size and ratio

	Group 1 ≤ 5 mm (n=127)	Group 2 > 5 mm (n=121)	p
Bilateralite n, (%)	17(13.4)	28(23.1)	0.046
Vascular invasion n, (%)	0	5(4.1)	0.021
Capsule invasion n, (%)	10(7.9)	27(22.3)	<0.001
Extrathyroidal extension n, (%)	7(5.5)	21(17.5)	0.003
lymph node metastases n, (%)	2(1.6)	16(13.2)	<0.000