

Clinicopathological features of thyroid carcinomas in geriatric patients

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Aim: Biological aggressivity, and recurrence and mortality rates of thyroid cancer are known to be higher in geriatric patients. We aimed to determine clinicopathological features of thyroid cancer in patients ≥ 65 years old.

Material and Method: Data of 933 patients diagnosed with thyroid cancer histopathologically between January 2009-December 2014 in our clinic were retrospectively reviewed. Malignant nodules in patients ≥ 65 and < 65 years old were taken as Group 1 and Group 2, respectively. Thyroid functions, ultrasonography(US) features and cytological and histopathological findings were compared.

Results: There were 109 (11.7%) patients ≥ 65 and 824 (88.3%) < 65 years old. Thyroid functions, thyroid autoantibody positivity and thyroidectomy indications were similar. There were 153 (11.4%) and 1185 (88.6%) malignant foci in Group 1 and 2, respectively. Among nodules with available preoperative US features, mean nodule diameter was significantly higher in Group 1 ($p=0.008$). Echogenity, texture, micro and macrocalcifications, margin irregularity and vascularization pattern were similar in two groups. Hypoechoic halo was observed in 16.4% and 28.6% of nodules in Group 1 and 2, respectively ($p=0.034$). Cytological results were distributed similarly in two groups ($p=0.433$). Histopathologically, tumor diameter, rates of microcarcinomas and incidentality were similar ($p=0.605$, $p=0.759$ and $p=0.605$, respectively). Of all cancer types, 88.8% in Group 1 and 93.9% in Group 2 were papillary thyroid cancer ($p=0.028$). Hurthle cell cancer constituted 3.9% of Group 1 and 1.1% of Group 2 carcinomas ($p=0.015$). 2.0% and 0.2% of tumors in Group 1 and 2 were anaplastic, respectively ($p=0.012$). There was not any significant difference in capsular and vascular invasion and extracapsular extension between groups. (Table-1)

Conclusion: Rates of Hurthle cell cancer which is known to have worsen prognosis among other DTCs and anaplastic cancer are increased in geriatric ages. Cytological evaluation of thyroid nodules should strongly be considered due to increased tendency for aggressive tumor types in these patients.

Table 1. Comparison of clinicopathological features of thyroid carcinomas in geriatric and non-geriatric patients

	Group 1 (≥ 65) (n=109)	Group 2 (< 65) (n=824)	p
Age	69.43 \pm 5.63	46.79 \pm 10.59	<0.001
Total tumor foci	153 (11.4%)	1185 (88.6%)	
Tumor number per patient	1.59 \pm 1.12	1.57 \pm 1.20	0.873
Cytological diagnosis	n=67	n=565	
Nondiagnostic	6 (9%)	82 (14.5%)	0.202
Benign	10 (14.9%)	88 (15.6%)	1
AUS/FLUS	11 (16.4%)	106 (18.8%)	0.592
FN/SFN	2 (3%)	39 (6.9%)	0.606
Suspicious for malignancy	16 (23.9%)	125 (22.1%)	0.909
Malignant	22 (32.8%)	125 (22.1%)	0.068
Histopathological features	n=153	n=1185	
Tumor diameter	11.55 \pm 15.58	10.15 \pm 11.52	0.182
Microcarcinoma	98 (65.8%)	752 (64.5%)	0.759
Incidentalilty	86 (55.2%)	620 (50.9%)	0.313
Tumor type			
Papillary	136 (88.8%)	1113 (93.9%)	0.028
Follicular	3 (2%)	25 (2.1%)	0.911
Hurthle cell	6 (3.9%)	13 (1.1%)	0.015
Medullary	1 (0.7%)	12(1%)	0.674
Anaplastic	3 (2%)	2 (0.2%)	0.012
WDT-UMP	4 (2.6%)	20 (0.2%)	0.341