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EP-715 Evaluation of thyroid nodules in acromegaly

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Objectives:

Acromegaly is a chronic disease caused by hypersecretion of GH mostly from a pituitary adenoma. The mortality in acromegalic patients is two to four times higher than the mortality of general population. Several retrospective studies have reported increased risk of both malignant and benign tumors in acromegalic patients. it is well-known that benign proliferative lesions, such as multinodular goiter (MNG), solitary nodule, and simple goiter occur frequently in acromegalic patients. However, the true prevalence of thyroid cancer in acromegaly is unknown. The aim of this study is to evaluate thyroid nodules and thyroid cancer frequency in acromegalic patients.

Methods:

The data of 125 acromegalic (55 male, 70 female) patients followed over 10 years were evaluated retrospectively from the recorded files. Data for gender, age, duration of acromegaly, thyroid function tests, thyroid ultrasonography (US) and thyroid fine needle aspiration biopsy (FNAB) and thyroidectomy pathological specimen results were analysed.

Table 1: Thyroid ultrasonography results

US findings	Patient
Multinodular goitre	66 (42.5%)
Solitary nodule	11 (8.8%)
Diffuse goitre	3 (2.4%)
No nodule	45 (36.0%)
Total	125 (100%)

Table 2: FNAB findings of the nodules

FNAB findings	Patient
Benign	30
Malign	3
Atypia of undetermined siginificance	1
Suspicious for follicular neoplasm	1

Table 3: Features of thyroid carcinoma patients

Patient	Sex	Age	Type of carcinoma	Disease Duration (years)
DT	F	45	Follicular	23
NK	M	55	Papillary	5
HO	F	58	Papillary	18
FA	F	37	Papillary	5
MS	F	30	Papillary	3

Results:

The mean age of the patients was 46.9 ±10.4 years and the mean disease duration was 10±4.8 years. Multinodular goitre was discovered in 66 patients (42.5 %), solitary nodule in 11 patients (8.8 %), diffuse goitre in 3 patients (2.4 %) and nodule was not detected in 45 patients (36.0 %). Nodule size was smaller than 10 mm in 31 patients (40.2 %) and larger than 10 mm in 46 patients (59.7 %) (Table 1). FNAB was recommended to all of the patients who had nodules larger than 10 mm and whose nodules were smaller than 10 mm and looked suspicious at imaging. FNAB was performed in 35 patients who accepted the procedure and the results were benign in 30 patients, malignant in 3 patients, atypia of undetermined significance in 1 patient and suspicious for follicular neoplasm in 1 patient (Table 2). Total thyroidectomy was administered to 14 patients and subtotal thyroidectomy to 2 patients. 1 thyroid follicular carcinoma and 4 thyroid papillary carcinoma (4%) were diagnosed (Table 3) and all of the patients received radioactive iodine treatment for ablation of the residual tissue.

Conclusions:

Thus acromegalic patients should be routinely submitted to thyroid ultrasound evaluation, followed by FNAB of nodules when indicated. Acromegalic patients must be considered as a high risk group for the development of thyroid cancer and must be closely followed for thyroid nodules and tumours.

References:

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