

## THE PREVALENCE OF DIFFERENTIATED THYROID CANCER IN MULTINODULAR GOITER VERSUS SINGLE THYROID NODULE IN KARBALA

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## ABSTRACT

**Background**: Thyroid cancer is the most common cancer affecting the endocrine system, accounting for approximately 1% of all human cancers, thyroid cancer occurs in 5–15% of cases with thyroid nodules depending on age, sex, radiation exposure history, family history, and other factors.

**Objectives**: To determine the prevalence of differentiated thyroid cancer in patients with multinodular goiter (MNG) and single thyroid nodule undergoing surgery in Karbala city.

**Methods**: A prospective study that was conducted at Imam Al-Hussain medical city and Safeer Al-Hussain hospital, Karbala, Iraq, over a period of twelve months starting from 1st of December 2021 to 1st of December 2022. During this period a total of 100 patients (88 female and 12 male) undergo thyroid surgery for different causes have been enrolled in the study.

**Results**: The overall prevalence of differentiated thyroid cancer was (19%), there is a strong relationship between nodularity and pathology types .which shows 16 (66.7) of patients with follicular adenoma, 9 patients (60%) with papillary thyroid cancer, and all patients 4(100%) with follicular thyroid cancer were single thyroid nodule, while 45 (84.9) of patients with colloid goiter and all patients with thyroiditis were multi nodular.

**Conclusions**: The prevalence of malignancy was significantly higher in single thyroid nodule than multi nodular goiter, with papillary thyroid cancer being the most common histological subtype. But, the prevalence of malignancy in multi nodular goiter was also quite high and cannot be underestimated, ultrasonography and Fine Needle Aspiration Cytology are both important tools that predicting malignancy in suspicious thyroid diseases (nodular).

KEYWORDS: Multi Nodular Goiter, Papillary Thyroid Cancer, Solitary Thyroid Nodule, Follicular Thyroid Cancer.