
INCIDENTAL CARCINOMA IN MULTINODULAR GOITRE

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Summary

This is a prospective study of 105 thyroid specimens during one-year period with the aim of evaluation of the prevalence and pattern of thyroid cancer in multinodular goiter. Only specimens with histologically proved multiple nodules were considered. Carcinomas were found in 8 cases (7.6%). The incidence was higher in males (11%) than in females (6.8%). Of all carcinomas seen in multinodular goiters 63% were of papillary type.

Introduction

The incidence of malignancy in multinodular goiter varies from 4%-17%¹⁻⁴, with the predominance of papillary and follicular carcinomas. This study aim's to evaluate the prevalence and pattern of thyroid malignancy found in association with multinodular goiters.

Materials and Methods

Over a period of one year (2001), the Pathology Department at Saddam Teaching Hospital in Basrah received 105 thyroid specimens that were proved to be multinodular. Thorough sampling of each specimen was done; at least one

histological section was obtained from each nodule. Only specimens with histologically confirmed multiple nodules were considered.

The percentage of malignancies among this group was calculated and was correlated to the patients' sex, clinical presentation, size and number of malignant foci.

Results

The total number of patients with histologically proved multinodular goiters included in the study was 105; with the predominance of female patients (female to male ratio was 4.8:1).

Histological examination of multinodular goiter specimens revealed the presence of carcinoma in 8 cases (7.6%), 6 (75%) of them were females. Papillary carcinoma was the commonest type and

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accounted for 63% of carcinomas (Table I). All carcinomas were solitary, the largest malignant focus was 3.5cm in diameter, while the smallest was 0.4 cm. in diameter. Lymph node metastasis was found in one case of papillary carcinoma and it measured 0.8cm. in diameter. All patients with thyroid carcinomas were clinically euthyroid.

Table I. Types of carcinoma according to sex, in 8 patients with multinodular goiter.

Type of carcinoma	M	F	Total
Papillary	2	3	5
Follicular	0	2	2
Insular	0	1	1
Total	2	6	8

The percentage of incidental carcinomas in males with multinodular goiter was 11%, a lower percentage was (6.8%) shown by females Table II.

Table II. Percentage of incidental carcinomas according to sex.

Sex	Total No.	No. of patients with carcinoma	% of incidental carcinoma
Male	18	2	11.1
Female	87	6	6.8

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Discussion

Multinodular goiter is a relatively common condition with a marked female predominance⁵.

It is still controversial whether nodular goiter is associated with an increased incidence of malignancy or not⁶. However, the reported incidence was ranging from 4% to 17%¹⁻⁴. In this study 7.6% of multinodular goiters were found to harbour a malignancy. This variation seems to be related to the extent of thyroid resection and the number of histological sections examined per specimen.

In agreement with other studies^{2,3,8,9}, the present study revealed that the incidence of carcinoma associated with multinodular goiter is higher in males than females, i.e. males with multinodular goiter are at higher risk of malignancy than females.

Papillary carcinoma was the commonest type of thyroid malignancy found in association with multinodular goiter. This finding is similar to that reported in the literature^{4,7,8}.

Conclusion & Recommendations

Multinodular goiters carry a considerable risk of malignancy particularly in males. The entire specimen should be sectioned; at least one histological section from each nodule is obtained.

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