

STUDY OF PREVALENCE OF MALIGNANCY IN NODULAR THYROID SWELLING IN SOUTHERN ODISHA

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ABSTRACT

Background: A very large number of carcinoma thyroid gland arise from a pre-existing adenoma or multinodular goiters surgical removal of a thyroid nodule or multiple nodules of thyroid gland is a challenge for surgeons to prevent cancer.

Aim of the study :To find out the prevalence of malignancy in nodular thyroid swelling in relation to age, sex, comorbidities dietary habits and environmental factors.

Method: Study of 80 cases of nodular thyroid swelling has been done during period from January 2021 to August 2022

On in patient admitted to M.K.C.G Medical College and Hospital,Berhampur. Detailed history, clinical examination, relevant investigations, surgical management and histopathological reports were collected and analysed using software package for statistical analysis (SPSS 20).

Results:Out of 80 patients with thyroid swelling , thyroid malignancies constitute 3% occurrence of carcinoma thyroid was maximum in 5th decade of life.

Male:Female ratio is 3:1.

Malignancy in long standing solitary thyroid nodule was almost 4.3% and in MNG was 3.6% which was almost close .

Most common histopathological type was papillary carcinoma thyroid (56%) followed by follicular carcinoma thyroid (26%) followed by benign swelling .

Conclusion:Prevalence of carcinoma thyroid is higher in elderly females with long nodular swelling and comorbidities.

Keywords:Multinodular goiter, nodular swelling .

INTRODUCTION

The annual incidence of thyroid cancer is about 0.6% per million of population and the sex ratio is three females to one male.

Emil Theodore Kocher-“Thyroid cells take up iodine with particular avidity and are able to store it up in great quantities’.

Upto 5% of women and 1% of men in iodine replete areas have palpable thyroid nodules.

In literature ,15% of isolated swellings prove to be malignant and 30 -40% are follicular adenomas,which drew our attention.

3% of discrete thyroid nodules present with carcinoma.

TIRADS 3 and TIRADS 4 on USG lesions showed 81% sensitivity and 62% specificity.

Bethesda 3, 4,5 on FNAC showed diagnostic specificity of follicular adenoma including HCA was 64% with a malignancy rate of 11% on histologic correlation.

DTC makes a vast majority of thyroid cancers with PTC and FTC of 84% and 11% respectively, anaplastic -5%, medullary -2..5% lymphoma 2.5%

AIMS AND OBJECTIVES

To analyse the clinical presentation of thyroid swellings

To find out the prevalence of malignancy in nodular thyroid swelling in relation to age, sex, duration of thyroid swelling.

To analyse correlation of clinical, USG, and FNAC findings of thyroid swellings with histopathological reports

METHODOLOGY

STUDY DESIGN; Prospective observational study

STUDY SITE; DEPT OF GENERAL SURGERY, MKCG MCH

STUDY PERIOD ; JANUARY 2021-FEBRUARY 2022 (enrollment) AUGUST 2022 (6 month follow up)

SAMPLING -PURPOSIVE CONSECUTIVE ENROLLMENT.

A total of 80 patients were enrolled

January 2021- February 2022

Group A -Solitary thyroid nodule (24 patients)

Group B – Multinodular Goitre (56 patients)

Appropriate surgery was done after informed consent and approval from ethical committee .

Follow up done 1, 2 and 6 months post- op

INCLUSION CRITERIA

Nodular thyroid swelling

20-60 year

EXCLUSION CRITERIA

Clinically malignant nodule

Features of thyrotoxicosis

Pregnancy

Patients who did not give consent

for the study

Patients with comorbidities

Table. No.1

	Malignancy +ve	Malignancy -ve
USG +ve	4	14
USG -ve	2	60

Unpaired t test

Sensitivity =66%

Table no.2

	Malignancy +ve	Malignancy -ve
FNAC +ve	5	4
FNAC -ve	1	70

Unpaired t test

Sensitivity =83%

Table no.3

VARIABLE	SOLITARY THYROID NODULE	MULTI NODULAR GOITRE
Mean age	29.9 yr	35.5 yr
Gender	5:1	13.5:1
Mean duration	2.6 yr	3.1 yr
malignancy	81.2%	71.6%

DISCUSSION

In present study overall malignancy detected among thyroid nodule is 7.5%

Among malignant thyroid nodule

Papillary carcinoma -33%

Follicular variant of papillary carcinoma- 16%

Follicular carcinoma-33%

Hurthle cell carcinoma-17%

Most of the patients with nodular thyroid swelling were from Kandhamal district (67.5%)

The prevalence of palpable thyroid nodules in Southern Odisha is nearly about 12%.

CONCLUSION

Significant chances of Occurrence of malignancy in clinically benign thyroid swellings .

In patients belonging to endemic zone and all the postop patients were followed up for 6 months with suppressive dose of L-Thyroxine.

There are significant chances of occurrence of highly aggressive thyroid cancer in swelling of duration >1 yr

Mean age group of 25-45 yrs.

Female :Male ratio of 5:1

Hence, thyroid swelling presents with bimodal age of presentation with female preponderance.