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Research Article

**INCIDENCE OF CARCINOMA OF THE THYROID GLAND IN  
PATIENTS TREATED FOR MULTI NODULAR GOITER (MNG)  
IN TERTIARY CARE HOSPITAL**<sup>1</sup>Dr. Muhammad Saleem Malik, <sup>2</sup>Dr. Asif Nawaz, <sup>3</sup>Dr. Malik Saboor Nasser<sup>1</sup>Shaqra General Hospital, [msmalikrcs@gmail.com](mailto:msmalikrcs@gmail.com), <sup>2</sup>Hayatabad Medical Complex Peshawar, [doc.asifnawaz@gmail.com](mailto:doc.asifnawaz@gmail.com), <sup>3</sup>Rural Health Centre Awandhaiwala, Lahore, [sabi-446@hotmail.com](mailto:sabi-446@hotmail.com)**Article Received:** November 2019    **Accepted:** December 2019    **Published:** January 2020**Abstract:**

**Background:** Nowadays in very few people the presence of MNG was found due to various reasons. In this disorder it is primary demand that all the patients should be examined thoroughly and all the details should be kept in a record. In case of various reasons surgical treatment should be offered to patients. The basic aim of this study is to analyze the occurrence and treatment for MNG.

**Methodology:** In this study 105 patients were selected having MNG. In this study a detailed review was done on all the patients and all the evaluation was done related to clinical. All the analysis like fine needle aspiration cytology, ultrasound of neck, functionality of thyroid, complete blood count were briefly take and observed. All the selected patients undergone a complete thyroidectomy and complete Histopathological observation. 21 patients out of 105 had carcinoma of the thyroid gland, and these all analysis was done in SPSS version 16.

**Results:** In this study it was found that in operated specimens the common found in thyroid gland is carcinoma. The results of this study is comparable with the previous studies.

**Conclusions:** It was concluded in this study that a thorough evaluation with Histopathological examination should be done on all the patients having MNG

**Keywords:** Total thyroidectomy, Thyroid function tests, Fine needle aspiration cytology, Histopathological examination, Multi nodular goiter

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**INTRODUCTION:**

A lot of people visit the surgical department having complaint of the swelling in neck after particular time. To analyze this a thorough examination must be done. There are various symptoms of MNG for example problem in swallowing, respiratory distress and coughing. To determine either a patient is suffering in hypothyroid or hyperthyroid, clinical examination is very significant. If MNG is diagnosed in a patient then after this various types of treatments are provided. In case of cosmetic, various pressure symptoms are found then surgical treatment is also offered. To find out the menace of patients having MNG is very important. Very often FNAC can be suspicious, so to put patient under histopathological examination is very important. According to previous studies if MNG is carefully examined then around 17% found suffered in carcinoma. To diagnose MNG high resolution ultrasound is very important that is used to detect the nature, number and size of the nodules. To check the functionality of the nodule of thyroid nuclear imaging is used. To check the occurrence of carcinoma in thyroid gland lymph nodes is used. Some studies showed that the occurrence of carcinoma in MNG is higher than the occurrence of general population. To obtain the cellular samples Fine-needle aspirate test is used which is very inexpensive, accurate, and fast.

**Objective:**

The basic aim of this study is to analyze the occurrence, type of carcinoma in MNG and treatment for MNG.

**METHODS:**

In this study 105 patients were selected having MNG. In this study a detailed review was done on all the patients and all the evaluation was done related to clinical. All the analysis like fine needle aspiration cytology, ultrasound of neck, functionality of thyroid, complete blood count were briefly take and observed. A thorough examinations was done like X-rays of neck and chest, thyroid functionality test, blood count, ultra sound of neck, and FNAC. Very often FNAC can be suspicious, so to put patient under histopathological examination is very important. All the selected patients undergone a complete thyroidectomy and complete Histopathological observation. 21 patients out of 105 had carcinoma of the thyroid gland, and these all analysis was done in SPSS version 16.

**Selection and Exclusion Criteria:**

All the patients were selected in which MNG was diagnosed and their age was between 20 to 70 years.

All those patients were excluded who had thyroid gland solitary nodule having age less than 20 years and greater than 70 years.

**RESULTS:**

In this study it was found that in operated specimens the common found in thyroid gland is carcinoma. The results of this study is comparable with the previous studies. Following tables show the result of this study. Table 1 show the FNAC that is fine needle aspiration cytology in patients with MNG. To differentiate between severe thyroid swelling and start of this swelling FNAC is used. Following table show that 20% is neoplastic swelling and 80% is non- neoplastic.

**Table.1** In 105 patients diagnose of FNAC with MNG

FNAC diagnosis	No. of patients	Percentage
Non-neoplastic	84	80
Neoplastic	21	20

**Table.2** Severity of swelling of thyroid due to MNG n=105

Findings	No. of patients	%
Benign	84	80
Highly suggestive of malignancy	21	20

**Table.3** Thyroid functional test n=105

TFT report	No. of patients	%
<b>Euthyroid</b>	72	68.57
<b>Hypothyroid</b>	25	23.80
<b>Hyperthyroid</b>	8	7.61

**Table.4** Distribution of male and females in n=21

Gender	No. of patients	%
<b>Male</b>	3	14.28
<b>Female</b>	18	85.71

**Table.5** Disease of thyroid gland in n-21

Disease of thyroid gland	No. of patients	%
<b>Papillary carcinoma</b>	15	71.42
<b>Follicular carcinoma</b>	5	23.80
<b>Medullary carcinoma</b>	1	4.76

In table 2 it was found that from all the patients only 20% had the severe swelling in thyroid gland and remaining had normal swelling. In table 3. It was described that out of 105 patients 7.6% had the hyperthyroid, 23% had hypothyroid and 68% had euthyroid.

Table 4 showed the incidence of carcinoma in thyroid gland in both males and females. In 85% of males the occurrence of carcinoma in thyroid gland was found while only 14.2% women had carcinoma. Table 5. Demonstrate the disease wise incidence of thyroid gland carcinoma in 21 patients, according to this in 71% patients out of 21 had the Papillary carcinoma, 23.8% had the Follicular carcinoma and 4.7% had the Medullary carcinoma.

### DISCUSSION:

Mostly thyroid gland nodule are found in adults and females. Many individuals visit the surgical department having problem of the growing in neck after specific time. To examine this a comprehensive

assessment must be finished. There are different manifestations of MNG for instance issue in swallowing, respiratory distress and coughing. To decide either a patient is enduring in hypothyroid or hyperthyroid, clinical assessment is exceptionally critical. In the event that MNG is analyzed in a patient, at that point after this different kinds of medications are given. In the event of restorative, different weight side effects are discovered then careful treatment is likewise advertised. To discover the threat of patients having MNG is significant. All the time FNAC can be suspicious, so to put tolerant under histopathological assessment is significant. As indicated by past examinations on the off chance that MNG is deliberately analyzed, at that point around 17% discovered endured in carcinoma. To analyze MNG high goals ultrasound is significant that is utilized to recognize the nature, number and size of the knobs. To check the usefulness of the knob of thyroid atomic imaging is utilized. To check the event of carcinoma in thyroid organ lymph hubs is utilized. A few investigations demonstrated that the event of

carcinoma in MNG is higher than the event of overall public. To acquire the cell tests Fine-needle suction test is utilized which is extremely cheap, exact, and quick.

It was also found that follicular thyroid carcinoma is the second most cause of cancer in thyroid gland.

**Table 6.** Comparison in our study and another study

Type of thyroid carcinoma	Our study (%)	Shah et al <sup>18</sup> (%)
Papillary carcinoma	71.42	69
Follicular carcinoma	23.80	11.6
Medullary carcinoma	4.76	9.7

### CONCLUSION:

It was concluded in this study that a thorough evaluation with Histopathological examination should be done on all the patients having MNG. It was also found that most common type of carcinoma in thyroid gland is papillary carcinoma. In this study it was found that women are more affected than men and people in age 31-40 are also more affected.

### REFERENCE:

- Pelizzo MR, Piotto A, Rubello D, Casara D, Fassina A, Busnardo B. High prevalence of occult papillary thyroid carcinoma in a surgical series for benign thyroid diseases. *Tumori*. 1990;76:255.
- Jun P, Chow LC, Jeffrey RB. The sonographic features of papillary thyroid carcinomas: pictorial essay. *Ultrasonud Q*. 2005;21:39-45.
- Meller J, Becker W. The continuing importance of thyroid scintigraphy in the era of high resolution ultrasound. *Eur J Nucl Med Mol Imag*. 2002;29:S425-38.
- Caragacianu D, Pakdaman MN, Kamani D, Randolph GW. Clinical characteristics of lymph node metastases in papillary thyroid carcinoma. *J Am Coll Surgeons*. 2014;219(4):e84-e85.
- Hamburger JI. Fine needle biopsy diagnosis of thyroid nodules. *Perspec Thyroidol*. 1988;1:21-34.
- Bloch M. Fine needle aspiration biopsy of head & neck masses. *Otolaryngol Head Neck Surg*. 1997;89:62-8.
- Hanumanthappa MB, Gopinathan S, Rithin S, Rai GD, Shetty G, Shetty A, et al. The incidence of malignancy in multi-nodular goitre: a prospective study at a tertiary academic centre. *J Clin Diag Res*. 2012;6(2):267-70.
- Davies L, Ouellette M, Hunter M, Welch HG. The increasing incidence of small thyroid cancers: where are the cases coming from? *Laryngoscope* 2010;120:2446-51.
- Schlesinger MJ, Gargill SL, Saxe IH. Studies in nodular goiter: Incidence of thyroid nodules in routine necropsies in nongoitrous region. *JAMA*. 1938;110:1638.
- Kapur MM, Sarin R, Karmakar MG, Sarda AK. Solitary thyroid nodule. *Ind J Surg*. 1982;44:174-9.
- Bhansali SK. Solitary nodule in the thyroid gland; experience with 600 cases. *Ind J Surg*. 1982;44:547-61.
- Abu-Eshy SA, Khan AR, Khan GM, al-Humaidi MA, al-Shehri MY, Malatani TS. Thyroid malignancy in multinodular goitre and solitary nodule. *J R Coll Surg Edinb*. 1995;40:310-2.
- Mofti AB, Al Momen AA, Suleiman SI, Jain GC, Assaf HM. Experience with thyroid surgery in Security Forces hospital. *Riyadh Saudi Med J*. 1991;12:504-6.
- Stoffer RP, Welch JW, Hellwig CA, Chesky VE, McCusker EN. Nodular goiter. Incidence, morphology before and after iodine prophylaxis, and clinical diagnosis. *AMA Arch Intern Med*. 1960;106:10-4.
- Benzarti S, Miled I, Bassoumi T, Ben Mrad B, Akkari K, Bacha O, et al. Thyroid surgery (356cases), risks and complications. *Rev Laryngol Otol Rhinol (Board)*. 2002;123(1):33-7.
- Cerci C, Cerci SS, Eroglu O, Dede M, Kopucuoglu N, Yildiz M. Thyroid cancer in toxic and nontoxic multinodular goiter. *J Postgrad Med*. 2007;53:157-60.
- Prades JM, Dumollard JM, Timoshenko A, Chelikh L, Michel F, Estour B, et al. Multinodular goiter, surgical management and histopathological findings. *Eur Arch Otolaryngol*. 2002;259:217-21.
- Shah SH, Muzaffar S, Soomro IN, Hassan S. Morphological patterns and frequency of thyroid tumors. *J Pak Med Assoc*. 1999;49(6):131-3.