

A study of clinical profile of solitary thyroid nodule patients at a tertiary care centre

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Abstract

Background: Solitary thyroid nodule is a single swelling involving either lobe or isthmus of the thyroid gland. These nodules can present as malignancy. Various factors like age, gender, iodine deficiency are responsible for development of this condition. This study was conducted to see the clinical profile of these patients. **Aim and objective:** To study the clinical profile of solitary thyroid nodules in patients at tertiary care centre. **Methodology:** Total 100 patients presenting with solitary thyroid nodule were studied. Data was collected with pretested questionnaire. Thorough clinical examination was carried out. Data was analysed with appropriate statistical tests. **Results and discussion:** Mean age of the patient was 34.72 ± 4.37 years. Majority of the patients were from the 31-40 years age group (42%). Male to female ratio was 1:6.7. Most common symptom among all patients was swelling in front of neck. All patients complained of swelling in front of neck followed by pain (12%).

Key Word: solitary thyroid nodule.

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they occasionally contain malignant solid components. Lesions of thyroid are commonly seen in females, in the ratio of 5:1, and this is due to variation of thyroid hormone demand during female reproductive functions and physiological events such as puberty, pregnancy and lactation. Thyroid cancer accounts for only a small percentage of thyroid nodules. Treatment modality depend on the type of thyroid nodule. It has aroused interest because of its potential to become malignant and also possibility of toxicity and complications like hemorrhage and pressure effects. Present study was aimed to study the clinical profile of solitary thyroid nodule in a tertiary care center.

INTRODUCTION

A solitary thyroid nodule is a palpable discrete swelling within an otherwise apparently normal thyroid gland.¹ Frequency of the thyroid nodules increases throughout life; a 5 to 10% lifetime risk exists for developing a palpable thyroid nodule.² Norman S Williams *et al.* described that discrete thyroid swellings are common and are present in 3-4 % of adult population About 70% of discrete thyroid swellings are clinically isolated/solitary and about 30% dominant.¹

It can be felt as a lump in the throat. When they are large, they can sometimes be seen as a lump in the front of the neck. Thyroid cysts most commonly result from degenerating thyroid adenomas, which are benign, but

MATERIAL AND METHODS

This is a prospective study carried out in a tertiary care center. Study population were patients presenting with solitary thyroid nodule. Total 100 patients were studied during study period. **Inclusion criteria:** 1. Patients presenting with solitary thyroid nodule. **Exclusion criteria:** 1. Patients presenting with multinodular goiter or diffuse colloid goiter 2. Patients who have not given consent for study. This study was approved by ethical committee of the hospital. A valid written consent was taken from patients after explaining about the study. Data

was collected with pre tested questionnaire. Data included sociodemographic data, clinical history and clinical examination. All patients underwent a thyroid profile, fine needle aspiration cytology (FNAC), X-ray of the neck-antero-posterior and lateral views, Chest X-ray and indirect laryngoscopy. Medical therapy was started in patients presenting with hypo or hyperthyroidism. In the surgical patients specimen was sent for histopathology.

RESULTS

Mean age of the patient was 34.72 ± 4.37 years. Majority of the patients were from the 31-40 years age group (42%) followed by 21-30 years age group (33%). Male to female ratio was observed to be 1:6.7 Most common symptom among all patients was swelling in front of neck. All patients complained of swelling in front of neck. Second most common complaint was pain (12%). Other complaints were palpable cervical lymph nodes (5%) and loss of weight (7%). Some patients also suffered from pressure effects like dysphagia (2%) and dyspnoea (2%). (table 2)

Table 1: Distribution of patients according to age

Sr no	Age group	Total	Percentage
1	< 20 years	03	03
2	21-30	33	33
3	31-40	42	42
4	41-50	12	12
5	51-60	07	07
6	61-70	03	03
7	Total	100	100%

Table 2: Distribution of patients according to sign and symptoms

Sr no	Sign and symptoms	No of patients	Percentage
1	Swelling in front of neck	60	100%
2	Pain	12	12%
3	Palpable cervical lymphnodes	05	5%
4	Dysphagia	02	2%
5	Dyspnoea	02	2%
6	Hoarseness of voice	02	2%
8	Loss of weight / hyperthyroidism	07	7%
9	Intolerance to cold / hypothyroidism	03	3%

DISCUSSION

Mean age of the patient was 34.72 ± 4.37 years. Majority of the patients were from the 31-40 years age group

(42%) followed by 21-30 years age group (33%). This result is comparable to the results obtained by Venkatachalapathy TS *et al.*³ In our study Male to female ratio was observed to be 1:6.7. similar to our study Shyam Prasad Keshri *et al* observed M: F ratio of 1: 2.33.⁴ Similar observation was made by C.S. Vyas *et al.*⁵ on 100 patients with thyroid nodule where the ratio was 1:7. Most common symptom among all patients was swelling in front of neck (100%) followed by pain (12%). Similar observation was done by SM Nazmul Huque *et al*⁶ where they observed that thyroid swelling was the most common presentation (100%). After swelling, palpable cervical lymph nodes was second most common presentation (6%). In our study patient also suffered from cervical lymphadenopathy (5%), dysphagia(2%) and dyspnoea (2%). This finding was similar to Abdullah Al Mamun *et al.*⁷ where some patients also presented with symptoms like cervical lymphadenopathy in 6 (5.08%) cases, dysphagia 2(1.69%) cases and hoarseness of voice 1(0.85%) case.

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