

Clinical Profile of Multinodular Goiter at A Tertiary Care Center: Descriptive Study

Rajesh Kakkari

Associate Professor, Department of General Surgery, Navodaya Medical College, Raichur, Karnataka.

Abstract

Introduction: Thyroid diseases are, arguably, among the commonest endocrine disorders worldwide. India too, is no exception. According to a projection from various studies on thyroid disease, it has been estimated that about 42 million people in India suffer from thyroid diseases. *Methodology:* The material of present study consists of patients admitted with multinodular goitre in Medical college Hospital and research centre. A total number of 30 cases were admitted and treated. After admission, a detailed history was taken and thorough clinical examination was carried out as entered in proforma. *Results:* The chief complaint was swelling in front of neck (100%) other symptoms were pain in 4 cases (13%), palpitations in 10 (33%) cases, and dyspnoea in 1 (3%) case, dysphagia in 3 cases (10 %) and weight loss in 4 cases (13%) *Conclusion:* Subtotal thyroidectomy was found to be an adequate and safe treatment for MNG with minimal complications.

Keywords: Multinodular Goiter; MNG; Subtotal Thyroidectomy.

Introduction

Worldwide, nodular goitre remains a problem of enormous magnitude. It is estimated that no less than 5% of the world's population have goitres. Depending on the population studied, multinodular goitre occurs in upto 12% of adults. Multinodular goitre is more common in women than men and increases in prevalence with age. The incidence of carcinoma in multinodular goitre has been reported as 5% to 10% [1].

The thyroid hormones, thyroxine and triiodothyronine, play key roles in the regulation of body development and govern the rate at which metabolism occurs in individual cells. The thyroid hormones exert their regulatory functions by influencing gene expression, affecting the developmental program and the amount of cellular constituents needed for the normal rate of metabolism.

The human thyroid gland consists of two lobes attached to either side of the trachea by connective tissue. The two lobes are connected by a band of thyroid tissue or isthmus, which lies just below the cricoid cartilage. A normal thyroid gland in a healthy adult weighs about 20 g [2].

Thyroid diseases are, arguably, among the commonest endocrine disorders worldwide. India too, is no exception. According to a projection from various studies on thyroid disease, it has been estimated that about 42 million people in India suffer from thyroid diseases [3].

Toxic multinodular goitres usually occur in individuals older than 50 years of age, who often have a prior history of a nontoxic multinodular goitre. Over several years, enough thyroid nodules become autonomous to cause hyperthyroidism. The presentation is often insidious in that hyperthyroidism may only become apparent when patients are placed on the low doses of thyroid hormone suppression for the goiter. Some patients have T_3 toxicosis, whereas other patients have apathetic hyperthyroidism, atrial fibrillation, or congestive heart failure. Hyperthyroidism can also be precipitated by iodide containing drugs such as contrast media and the anti arrhythmic agent amiodarone.

Methodology

The material of present study consists of patients

Corresponding Author: Dr. Rajesh Kakkari, Associate Professor, Department of General Surgery, Navodaya Medical College, Raichur, Karnataka 584103.
E-mail: rajeshkakkari@gmail.com

admitted with multinodular goitre in Medical college Hospital and research centre. A total number of 30 cases were admitted and treated.

After admission, a detailed history was taken and thorough clinical examination was carried out as entered in proforma .

The patients were investigated .The investigations included Hemoglobin, total count, differential count, urine analysis, blood sugar estimation, blood urea estimation, blood grouping and Rh typing, serum cholesterol, X-ray of the neck-AP and lateral views and chest X-ray and ENT examination. All patients had a Thyroid profile and FNAC done. USG neck was also done in all the patients.

These patients underwent surgery and all the excised thyroid tissue were sent for Histopathological examination.

Patients were discharged after removing the sutures and were asked to come for follow up. They were advised to take the needful medications accordingly.

Only those patients with clinical evidence of multinodular goiter were taken up for the study randomly, excluding malignancies detected preoperatively and the results were compared with other studies.

Results

Table 1: Age and sex incidence

Age in yrs	Males	Females	Total No of cases	%
10 yrs	00	00	00	00
11-20 yrs	00	06	06	20%
21-30 yrs	00	09	09	30%
31-40 yrs	01	06	07	23%
41-50 yrs	01	05	06	20%
51-60yrs	01	01	02	06%
60&above	00	00	00	00
Total	03	27	30	100%

Table 2: Symptomatology

Complications	No of cases	Percentage
Swelling	30	100%
Pain	4	13%
Palpitations	10	33%
Dysphagia	3	10%
Dyspnoea	1	3%
Wt loss	4	13%

Table 3: Types of goitre

	No of cases	Percentage
Toxic	9	30%
Non toxic	21	70%
Total	30	100%

Of the thirty cases, 3 were males (10 %) and 27 were females (90%). All the 3 (100%) cases of male presented in the age group of 31 yrs and above. Majority of females 53 %(16 cases) presented in the age group between 21- 40yrs. Females were predominant in number over males with a sex ratio 9:1

In our study maximum age of presentation was 60 years and minimum age was 15 yrs.

The chief complaint was swelling in front of neck (100%) other symptoms were pain in 4 cases (13 %), palpitations in 10(33%) cases, dyspnoea in 1(3%) case, dysphagia in 3 cases (10%) and weight loss in 4 cases (13 %).

Toxic symptoms and signs were seen in 9 cases (30%), among these 1 female patient had eye signs and 3 patients had tremors .

Discussion

Patients presenting with multinodularity of thyroid gland without obvious evidence of malignancy were studied during period of September 2012 to August 2014 with aims of assessing clinical presentation, age and sex distribution ,complications and comparison of FNAC with histopathological examination, of 30 cases admitted to Navodaya medical college and research centre.

Of the thirty cases, 3 were males (10%) and 27 were females (90%). According to a study conducted by Dympep et al [4], The 25 patients who underwent surgery for MNG were aged 44.16 ± 12.45 years (mean \pm SD, range = 22-68 years). The percentage of female was 92% and male was 8%.

All the 3(100%) cases of male presented in the age group of 31 yrs and above. Whereas among females 30 % presented in the age group of 21 -30 and 23% in the age group of 31 – 40 years. Majority of females 53 %(16 cases) presented in the age group between 21- 40yrs.

NygaardB [5]reported that out of 69 cases, 62 cases (89.9%) were females and 7 cases (10%) were males with sex ratio 8.8:1. In our study maximum age of presentation was 60 years and minimum age was 15 yrs.

The chief complaint was swelling in front of neck (100%). Other symptoms were Pain in 4 cases (13 %), Palpitations in 10 (33%) cases dyspnoea in 1(3%) case, dysphagia in 3 cases (10%) and weight loss in 4 cases (13%). Toxic symptoms and signs were seen in 9 cases (30%), among these 1 female patient had eye signs and 3 patients had tremors.

Conclusion

Highest age incidence of multinodular goitre was observed in the age group 21 - 30 years (30percent). Average age of the patient 31.3 years, youngest was 15years and oldest was 60 years.

The commonest complaint was swelling in front of the neck (in 100 percent of cases). Other symptoms were pain and discomfort, dysphagia, palpitation, dyspnoea, increased sweating, increased appetite and weight loss.

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