

Clinico Pathological Study of Goiter Cases Attending Tertiary Care Centre

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Abstract

Introduction: Worldwide, nodular goitre remains a problem of enormous magnitude affecting no less than 5% of the population. Neither a well formulated nor a simple procedure is available for the management of MNG. **Methodology:** A total number of 30 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. Thyroid profile, USG neck and FNAC was done in all the patients. **Results:** FNAC was found to be very useful in evaluation of MNG. FNAC was done in all cases and results were compared. This shows that FNAC is 100 % accurate, indispensable tool and is minimally invasive technique. **Conclusion:** FNAC is indispensable, minimally invasive technique, cost effective, highly accurate technique in diagnosis and management of MNG.

Keywords: MNG; Multinodular Goiter; FNAC.

Introduction

The development of the human body, from embryo to adult, is an orderly, programmed process. The timing of developmental events is remarkably constant from one individual to the next, with developmental milestones reached at about the same time in all of us. At the level of the individual cell, the timing or rate of metabolic processes is also tightly regulated.

The cell not only meets its basic metabolic

“housekeeping” needs but also remains poised to do its own special work in the body, such as conducting nerve impulses and contracting, absorbing, and secreting. During its life span, the cell continues to make the enzymatic and structural proteins that ensure the maintenance of an appropriate rate of metabolism.

World wide the most frequent single cause of endemic MultinodularGoitre is still iodine deficiency [1].

In areas where the iodine supply is scarce, a TSH mediated compensatory mechanism is set into motion. As a consequence the thyroid gland diffusely enlarges and as time passes by it gradually becomes nodular [2].

Iodine deficiency is not only the cause of endemic goitre because a high prevalence of goitre has been reported from areas where iodine supply is abundant and because MultinodularGoitre continues to be a highly prevalent disorder in areas such as Switzerland, where iodine deficiency has long been eradicated [2].

The foregoing section on pathogenesis should make it clear that non endemic nodular goitre, are the late results of intrinsic disorders of intracellular growth control mechanism, just as in other clonal and polyclonal benign tumors [3].

Where as thyroid stimulating immunoglobulins cause the goitre of graves disease, specific Growth stimulating immunoglobulins are considered by some authors to be a causative factor in a fraction of nodular goitres [4].

Methodology

The material of present study consists of patients admitted with multinodulargoitre in Medical college Hospital and research centre. A total number of 30

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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

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

Table 1: FNAC of thyroid

	No of cases	Percentage
Colloid Goitre	27	90%
Hashimotos	2	6%
Malignancy	0	0%
Follicular adenoma	1	3%
Total	30	100%

FNAC of thyroid revealed that 90% of them were colloid goiter, 6% were Hashimotos, and 3% were Follicular adenoma.

Table 2: HPE of thyroid

	No of cases	Percentage
Colloid Goitre	27	90%
Hashimotos	2	6%
Malignancy	0	0%
Follicular adenoma	1	3%
Total	30	100%

HPE of thyroid also revealed that 90% of them were colloid goiter, 6% were Hashimotos, and 3% were Follicular adenoma.

Discussion

FNAC was found to be very useful in evaluation of MNG. FNAC was done in all cases and results were compared. This shows that FNAC is 100 % accurate, indispensable tool and is minimally invasive technique, cost effective procedure.

The main indication for surgery in our series is fear of malignancy on the part of the patient, toxic symptoms, pressure symptoms and cosmetics.

Of the 30 cases, 27(90%) cases were subjected to subtotal thyroidectomy, near total thyroidectomy 3(10%) cases. We encountered very few postoperative complications

Transient hypoparathyroidism was seen in 2 cases (6%) which was observed during first post operative week and recovered completely with oral and IV calcium therapy. There was no permanent hypothyroidism.

Temporary recurrent laryngeal nerve palsy was seen in 1 case (3%) which recovered in 1 month. There was no permanent recurrent laryngeal nerve palsy.

According to a study conducted by R Fernando et al [5]of 102 patients, 14 patients developed hypocalcemia of which 12(11.7%) had transient and 2(1.96%)had permanent deficiencies. 8 patients developed hoarseness following surgery of which 7(6.86%) had transient and only 1(0.98%) had permanent hoarseness.

There were 3 (10%) cases of wound infection which was controlled within a week with antibiotics and regular dressings.

According to histopathological analysis in the present study 30 cases , 27 cases shows colloid goitre (90%), 2(6%) shows Hashimotos thyroiditis and 1 case of follicular adenoma.

Conclusion

Histopathological examination showed features of colloidgoitre, Hashimoto's thyroiditis, and follicularadenoma

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