

## Surgical Management of Thyroid Lesions in Dinajpur Medical College Hospital

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A total 73 cases of thyroid diseases were treated by surgical procedure in the department of ENT at Dinajpur Medical College Hospital in the period of 2005 to 2013. Out of 73 cases 69 (94.5%) were female and 4 (5.5%) were male having female to male ratio is 17.2: 1. Maximum numbers of patients (38.2%) were between the age group of 31 to 40 years. The incidence of maximum diseases are simple nodular cyst 49(67.1%), multinodular goiter 24(32.9%). The patients underwent nodulectomy 38(52.1%), hemithyroidectomy 22 (30.2%) and near total thyroidectomy 13(17.8%). During the operation, transient recurrent laryngeal nerve injury occurred in 1 (1.4%) patient. This study showed that the incidence of thyroid diseases is higher in adult female than male in the form of simple nodular cyst which can be effectively treated by nodulectomy.

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**Key words:** Thyroidectomy, Dinajpur

### Introduction

**T**hyroid diseases are common in Bangladesh.<sup>1</sup> These diseases are treated either medically or by surgical procedure or in combination of both. Thyroid nodules are treated by surgical procedure.<sup>2</sup> In diffuse toxic goiter and toxic nodular goiter, surgical operations are curative because all the overactive thyroid tissues are removed allowing the suppressed normal tissue to function again.<sup>3</sup> There are different types of surgery for thyroid diseases. Such as nodulectomy, hemithyroidectomy and near total thyroidectomy.<sup>4</sup> Nodulectomy and

hemithyroidectomy are the treatment of choice of benign solitary thyroid nodule. For multinodular goiter, treatment is near total thyroidectomy. Now a days, the opinion regarding surgical treatment of benign and malignant thyroid diseases are more liberal than those from before and has been found to be more effective as well as a better way of managing those diseases. The objective of the present study was to assess the different surgical procedure done on different types of thyroid diseases at the ENT department of Dinajpur Medical College Hospital.

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## Methods

This was a retrospective clinical study. This study was done in the department of ENT at Dinajpur Medical College Hospital in the period of 2008 to 2013. It is a tertiary level hospital situated in the northern part of Bangladesh. It is a newer institute. This study was done on 73 cases. Data was collected from patients' record file. Thyroid operation was done in the department of ENT. Histopathology and cytopathology were done in the department of pathology, Dinajpur Medical College and also from private laboratories in Dinajpur town. Biochemical test and hormone analysis was done in the biochemistry department and institute of Nuclear Medicine and Allied Science (INMAS) in Dinajpur. Data was collected in tabulated form for analysis.

## Results

The patients were distributed in different age group. The Table I shows the age distribution of 73 patients of our study. Among the patients, maximum number of patients (38.3%) was between the age group of 31 to 40 years. 24.7% patients were between the age group of 41-50 years and 23.3% patients were in the age of 21-30 years.

Table-I: Age incidence (n=73)

Age in years	Numbers	Percentage
0-10	1	1.4 %
10-20	3	4.1%
21-30	17	23.3%
31-40	28	38.3%
41-50	18	24.7%
Above 50	6	8.2%
Total	73	100%

The Table II shows the sex distribution of 73 patients of our study. Among the patients, Female were predominating (94.5%) with a female to male ratio of 17.2: 1

Table II: Sex distribution

Sex	Number	Percentage
Male	4	5.5%
Female	69	94.5%
Total	73	100%

Table III outlines the histological classification of thyroid glands. Among them highest number (67.1%) of them were Simple nodular cyst followed by Multinodular Goitre 32.9%.

Table III: Histological classification of excised thyroid glands (2008-2013)

Type of thyroid nodule	Number	Percentage
Simple nodular cyst	49	67.1%
Multinodular Goitre	24	32.9%
Total	73	100%

All the patients underwent surgical treatment. Among the surgical procedure, highest number (38 patients) 52.1% were Nodectomy followed by hemithyroidectomy 30.1% (22 patients), 17.8% (13 patients) Near total thyroidectomy.

Table IV: Surgical procedure applied

Name of operation	Number	Percentage
Nodectomy	38	52.1%
Hemithyroidectomy	22	30.1%
Near total thyroidectomy	13	17.8%

The Recurrent laryngeal nerve injury occurred during thyroidectomy operation. Transient nerve injury occurred in 1 (1.6%) patients.

Tracheostomy was done as an emergency procedure postoperatively in a total of 1 (1.4%) patients. Drains were used in all

patients. The operative mortality rate was zero.

### Discussion

Thyroid disease are more common in females.<sup>5</sup> The aim of the surgery is to reduce the transformation of benign thyroid swelling into malignant one.<sup>6,7</sup> In one study, highest numbers of patients 67.1% having benign simple nodular cyst which was diagnosed by history, clinical examination and FNAC and then determined the indication of surgery.<sup>8, 9</sup> Hemithyroidectomy in 22 patients were done in present study having correlation with other studies.<sup>8, 9</sup> This type of surgery not only removes the disease but also remove the risk of carcinoma.<sup>8,9</sup>

In the present study, the simple nodular cyst is effectively treated by nodulectomy. We have done Near Total Thyroidectomy in 13 patients (17.8%) for the cases of multinodular goiter. In surgical practice this type of surgery for multinodular goiter is done for predominantly throughout the world and accordingly we also carried out similar surgery in our study.<sup>10</sup> On the other hand, Near Total Thyroidectomy removes all the pathological tissues completely but there is a risk of recurrent laryngeal nerve injury.<sup>11</sup> Regular follow up for near total thyroidectomy is very much essential to encounter hormonal imbalance. Recurrent laryngeal nerve injury due to accidental injury during operation was noted in 1 (1.4%) in our cases.

In the present study the incidence of thyroid diseases is higher. One cause is female are more affected due to female are more neglected in our society, they come to govt. medical college hospital as it takes minimum cost to perform a operation. Maximum male patients who are high conscious about themselves they go to private clinic or Dhaka or better place to perform their operation.

We have some limitations. As it is a new medical college hospital, here all the adequate instruments, adequate surgeons are not available. So, complicated operations are not usually performed here. In next, we have the aim to operate more complicated operation and in near future post graduate course will be continue in this medical college and then more surgeons, more facilities will be available and we will be able to do apply all type of operations.

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