

Study of Clinical Presentation of Various Neck Masses at Tertiary Care Hospital

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Abstract

Introduction: The neck encompasses a wide variety of anatomical structures that belong to different organ systems, and thus swellings in the neck can be caused by innumerable pathological lesions arising from various anatomical structures therein. Masses in the neck show a wide range of origins and can be congenital or acquired, inflammatory, vascular, or neoplastic.

Methodology: A total of 100 patients with neck masses attending the ENT department of SVS Medical College/Hospital were studied. Clinical evaluation of the patient was done through proper history-taking and clinical examination. Pathological evaluation was done by FNAC and excisional biopsy.

Results: In the present study, the maximum number, i.e., 28 cases, were in the age group of 31–40 years, and the minimum number, i.e., 4 cases, belonged to the 61–70 years age group. The minimum age is 5 years, and the maximum age is 62 years. The mean age of the patients is 33.08 years. Mean \pm SD is 33.08 \pm 13.5. In the present study, 76 cases were female and 24 cases were male with a male-to-female ratio of 1:3.17.

Conclusion: The most common neck mass was thyroid mass, followed by lymph node mass, salivary gland mass, and other masses. Within the thyroid swellings, the most common thyroid mass was a colloid goitre. Within the lymph node swellings, the most common lymph node mass was TB cervical lymphadenitis.

Key words: Clinical evaluation, FNAC, Neck masses

INTRODUCTION

Neck mass is a common condition in clinical practice routinely encountered by an ENT surgeon.^[1,2] The neck encompasses a wide variety of anatomical structures that belong to different organ systems, and thus swellings in the neck can be caused by innumerable pathological lesions arising from various anatomical structures therein. Masses in the neck show a wide range of origins and can be congenital or acquired, inflammatory, vascular, or neoplastic. Mostly benign, neck masses can sometimes be malignant and may occasionally lead to fatal complications like airway compression, vascular compromise, and

metastatic spread of the lesion. The most commonly presenting neck masses occur within the lymph nodes, thyroid, and salivary glands. Other less common pathologies presenting as neck masses are thyroglossal cysts, branchial cleft cysts, carotid body tumors, cystic hygromas, pharyngeal pouch abnormalities, and lumps of skin appendages.^[3-5]

MATERIALS AND METHODS

A prospective study was carried out in the Department of ENT, SVS Medical College and Hospital, Mahabubnagar, Telangana, from November 1st, 2016 to October 31st, 2018.

A total of 100 patients with neck masses attending the ENT department of SVS Medical College/Hospital were studied. Clinical evaluation of the patient was done through proper history-taking and clinical examination. Pathological evaluation was done by FNAC and excisional biopsy.

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Inclusion Criteria

1. All patients who presented clinically with palpable neck masses in ENT OPD and got admitted for the same
2. Those willing to undergo FNAC and excisional biopsy
3. Those willing to give consent, enroll, and abide by the study protocol.

Exclusion Criteria

1. Patients not willing to undergo FNAC and excisional biopsy
2. Patients were not willing to give consent for the study.

This study was carried out in the department of ENT at SVS Medical College and Hospital, Mahabubnagar. A total of 100 cases of neck masses were studied; FNAC and excisional biopsy were done in all the cases, and the following were the observations noted:

RESULTS

In the present study, the maximum number, i.e., 28 cases, were in the age group of 31–40 years, and the minimum number, i.e., 4 cases, belonged to the 61–70 years age group. The minimum age is 5 years, and the maximum age is 62 years.

The mean age of the patients is 33.08 years. Mean ± SD is 33.08 ± 13.5

In the present study, 76 cases were female and 24 cases were male with a male-to-female ratio of 1:3.17.

Table 1: Other clinical symptoms of the patients studied

Other clinical symptom	Number of patients (%)
Nil	64 (64.00)
Weight loss	16 (16.00)
Hoarseness of voice	2 (2.00)
Dysphagia	4 (1.00)
Pain	10 (10.00)
Palpitations	1 (1.00)
Fever	15 (15.00)
URTI	1 (1.00)

Table 2: Anatomical site of the swelling

Anatomical site	Number of patients (%)
Submental triangle	4 (4.00)
Submandibular triangle	8 (8.00)
Upper cervical	28 (28.00)
Middle cervical	4 (4.00)
Lower cervical	2 (2.00)
Posterior triangle	5 (5.00)
Anterior part of neck/midline swelling	48 (48.00)
Lateral part of neck	1 (1.00)
Total	100 (100.00)

In the present study as shown in Table 1, the maximum number of patients, i.e., 64, presented with only neck swelling; 16 patients had weight loss; 15 patients had fever; 10 patients had pain; 4 patients had dysphagia; 2 patients had hoarseness of voice; 1 patient had palpitations; and 1 patient had URTI.

On examination of the neck, as shown in Table 2, 48 patients had swelling in the anterior part of the neck, 28 patients had swelling in the upper cervical region, 8 patients had swelling in the submandibular triangle, 5 patients had swelling in the posterior triangle, 4 patients had swelling in the submental triangle, 4 patients had swelling in the middle cervical region, and 1 patient had swelling in the lateral part of the neck.

In the current study, as shown in Table 3, 26% of patients were diagnosed with TB Lymphadenitis, followed by Multinodular goitre -19%, followed by Colloid Goitre -12%. Solitary Thyroid Nodule was diagnosed in 10% of patients and 10% of the patients were diagnosed with Chronic Lymphadenitis.

As Depicted in Table 4, Consistency of the swellings is Firm in 77 patients, soft in 4 patients, hard in 7 patients, cystic in 8 patients, fluctuant in 4 patients.

Table 3: Clinical diagnosis of the patients studied

Clinical diagnosis	Number of patients (%)
Thyroid Swellings	
Multinodular goitre	19 (19.00)
Colloid goitre	12 (12.00)
Solitary thyroid nodule	10 (10.00)
Adenoma thyroid	8 (8.00)
Salivary gland swellings	
Chronic sialadenitis	4 (4.00)
Pleomorphic adenoma	3 (3.00)
Lymph node swellings	
TB lymphadenitis	27 (26.00)
Malignant metastasis	2 (2.00)
Chronic lymphadenitis	10 (10.00)
Non-Hodgkin's lymphoma	1 (1.00)
Other swellings	
Lipoma	2 (2.00)
Thyroglossal cyst	2 (2.00)
Total	100 (100.00)

Table 4: Consistency of the swelling

Consistency	Number of patients (%)
Soft	4 (4.00)
Firm	77 (77.00)
Hard	7 (7.00)
Cystic	8 (8.00)
Fluctuant	4 (4.00)
Total	100 (100.00)

DISCUSSION

This is a prospective study of 100 cases presenting with neck masses between the ages of 5–62 years to the Department of ENT and Head and Neck Surgery at SVS Medical College and Hospital, Mahabubnagar, Telangana State, from November 1st, 2016 and October 31st, 2018. All the patients underwent FNAC, followed by excisional biopsy and histopathological examination. In our study, the most common neck mass was thyroid mass, followed by lymph node mass, salivary gland mass, and other masses. Within the thyroid swellings, the most common thyroid mass was a colloid goitre. Within the lymph node swellings, the most common lymph node mass was TB cervical lymphadenitis.

In the study by Rahman *et al.*,^[6] the most common age group was 21–30 years. In the study by Santhraya *et al.*,^[7] the most common age group was 31–40 years. In the study by Jasani *et al.*,^[8] the most common age group was 21–30 years. The most common age group in the present study is 31–40 years. In the study by Tilak *et al.*,^[9] the M:F ratio was 1:1.2. In the study by Fernandes *et al.*,^[4] the M: F ratio was 1:4.7. In the study by Solanki *et al.*,^[10] the M: F ratio was 1:1.32.

In the present study, the M: F ratio was 1:3.15. Hence, the present study is comparable with the above studies in terms of sex distribution. The present study is in accordance with the study by Santhraya *et al.*^[7] In the study by Rahman *et al.*^[6] non-malignant lesions were 86.1% and malignant lesions were 88%. In the study by Sangavi *et al.*^[11] non-malignant lesions were 88% and malignant lesions were 12%. In the study by Jasani *et al.*,^[8] non-malignant lesions were 80% and malignant lesions were 20%. In the study by Naik *et al.*,^[12] non-malignant lesions were 89.5% and malignant lesions were 10.5%.

In the present study on FNAC, non-malignant lesions were 83%, malignant lesions were 13%, and 4% were conclusive. These findings are in concordance with the above studies.

In the study by Rahman *et al.*^[6] 341 (64.8%) were lymph node swellings, 127 (24.2%) were thyroid swellings, 32 (6.1%) were salivary gland swellings, and 26 (4.1%) were other swellings. In the study by Jasani *et al.*^[8] 309 (68.6%) were lymph node swellings, 88 (19.5%) were thyroid swellings, 27 (6%) were salivary gland swellings, and 26 (5.7%) were other swellings.

In the study by Soni *et al.*^[13] 28 (47.45%) were Lymph node swellings, 14 (23.72%) were thyroid swellings, 13 (22.03%) were salivary gland swellings, and 9 (4.5%) were other swellings. In the present study, as shown in

table 3, 40 (40%) were lymph node swellings, 49 (49%) were thyroid swellings, 7 (7%) were salivary gland swellings, and 4 (6.77%) were other swellings. The most common neck mass was thyroid mass (49%), followed by lymph node mass (40%), salivary gland mass (7%), and other masses (4%). Within the thyroid swellings, the most common thyroid mass was s colloid goitre. Within the lymph node swellings, the most common lymph node mass was TB cervical lymphadenitis. Of the 49 thyroid mass aspirates, 36 cytological reports (73.47%) were similar to HPE, 9 cytological reports (18.36%) were not similar to HPE, and 4 cytological reports (8.17%) were inconclusive.

CONCLUSION

The most common neck mass was thyroid mass, followed by lymph node mass, salivary gland mass, and other masses. Within the thyroid swellings, the most common thyroid mass was a colloid goitre. Within the lymph node swellings, the most common lymph node mass was TB cervical lymphadenitis.

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