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Research Article

**ENLARGED CERVICAL LYMPH NODES IN PATIENTS
WITH PAPILLARY THYROID CANCER**

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Abstract:

OBJECTIVE: To determine the frequency of enlarged cervical lymph nodes in patients with papillary thyroid cancer.

PATIENTS AND METHODS: The three year hospital based cross-sectional multidisciplinary and multicenter study (2013-2016) was conducted at tertiary care hospitals and the data was also recruited from few private hospitals. All the patients having weight loss, anorexia, fatigue and weakness along with suspicious thyroid nodule were recruited and studied. The known cases of papillary thyroid cancer were also entered in the study. After taking clinical history, physical examination and routine investigations, patient also underwent a comprehensive neck ultrasound as part of a routine preoperative while the FNAC was also done whereas the frequency / percentages (%) and means \pm SD computed for study variables.

RESULTS: During two year study period total fifty patients were explored and study. The mean \pm SD for age (yrs) of population was 45.63 \pm 8.51. Regarding gender male 30 (60%) and female 20 (40%). enlarged cervical lymph node was observed in 19 (38%), raised WBC count and ESR in 40 (80%) and 42 (84%) and anemia in 39 (78%) respectively.

CONCLUSION: The enlarged cervical lymph nodes are associated with an increased likelihood of thyroid malignancy in the patients with thyroid nodule.

KEYWORDS: Lymph node, Thyroid malignancy and papillary thyroid cancer.

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INTRODUCTION:

Lymph nodes are oval-shaped organs of immune system, distributed throughout the body and linked by lymphatic vessels while the cervical lymphadenopathy (CLA) is a common problem in clinical practice which poses diagnostic problems.¹ Any abnormality in the size, consistency, and number of lymph nodes is defined as lymphadenopathy caused by the invasion or propagation of either inflammatory or neoplastic cells into the lymph node. Malignancies, infections, autoimmune disorders, iatrogenic, and miscellaneous conditions are regarded as the etiological factor for cervical lymphadenopathy.² Differentiating localized and generalized lymph-adenopathy is very essential for formulating a diagnosis and a patient having palpable lymph node in the neck is a serious diagnostic and therapeutic trouble.³ Approximately 40% to 50% of apparently normal population has palpable cervical lymph nodes. Nodular disease of the thyroid gland is becoming increasingly prevalent and is largely attributed to the increased detection of nodules by the routine implication of ultrasonography in clinical practice and the population being evaluated.⁴ The evaluation of malignant sonographic features of thyroid nodules can help to predict malignancy in thyroid nodules.⁵ The correlation between enlarged cervical lymph nodes (ECLN) and the risk of papillary thyroid cancer (PTC) identified by preoperative neck ultrasound and FNAC.⁶ Thus the study explored that if ECLN or suspicious features identified on the ultrasound then can better predict the diagnosis of thyroid malignancy in the patients having suspicious thyroid nodules in our population.

PATIENTS AND METHODS:

The three-year hospital based cross-sectional multidisciplinary and multicenter study (2013-2016) was conducted at tertiary care hospitals and the data was also recruited from few private hospitals. All the patients having weight loss, anorexia, fatigue and weakness along with suspicious thyroid nodule were recruited and studied. The known cases of papillary thyroid cancer were also entered in the study while the exclusion criteria were patients with connective tissue and cervical abscess or who were previously investigated for lymphadenopathy, patients with follicular, medullary, lymphoma, and anaplastic carcinomas and the individuals already on anti-inflammatory medication, antibiotics, corticosteroids, immunosuppressive drugs and the non cooperative patients didn't interest to participate in the study. After taking clinical history, physical examination and routine investigations, patient also underwent a comprehensive neck ultrasound as part of a routine preoperative, FNAC was also done followed by excisional biopsy of a lymph node (if needed) was performed by the surgeon and material transferred into formalin and sent to laboratory for analysis by pathologist while the clinical examination has also support in the diagnosis. The enlarged cervical lymph node was defined as a lymph node greater than 1cm in greatest dimension. The data was collected on pre-designed proforma and analyzed in SPSS to manipulate the mean \pm SD, frequencies and percentages.

RESULTS:

During three year study period total fifty patients were explored and study. The mean \pm SD for age (yrs) of population was 45.63 ± 8.51 . The demographical and clinical profile of study population is presented in Table 1.

TABLE 1: THE DEMOGRAPHICAL AND CLINICAL PROFILE OF STUDY POPULATION

Parameter	Frequency (N=50)	Percentage (%)
AGE (yrs)		
20-29	06	12
30-39	09	18
40-49	14	28
50-59	15	30
60+	06	12
GENDER		
Male	30	60
Female	20	40
ENLARGED CERVICAL LYMPH NODES:		
Yes	19	38
No	31	62
RAISED WBC COUNT		
Yes	40	80
No	10	20
RAISED ESR		
Yes	42	84
No	08	16
ANEMIA		
Yes	39	78
No	11	22

DISCUSSION:

The incidence of thyroid cancer is rising worldwide with papillary thyroid cancer (PTC) being the most common type. ⁷Despite this excellent survival, PTC is associated with a high rate of lymph node metastases and has led to controversy regarding the surgical management of the neck in thyroid malignancy. ⁸ Cervical lymph nodes are a common area for malignant thyroid cells to metastasize via lymphatic drainage and ECLN is easy to assess during the ultrasonographic evaluation of suspicious thyroid nodules and is imperative to preoperatively to determine if a biopsy is needed. ⁹ Scanning for enlarged cervical lymph nodes with suspicious characteristics can be done easily during a US guided FNA biopsy of thyroid nodule. The procedure takes little time and can provide additional information, helping the surgeon plan the optimal surgical approach. ¹⁰ The situations with multiple thyroid nodules with the presence of enlarged cervical lymph nodes can add to the suspicion of a possible malignancy in thyroid nodules and could direct surgeons to have biopsy of more suspicious nodule due to a higher risk of malignancy.

CONCLUSION:

The enlarged cervical lymph nodes are associated with an increased likelihood of thyroid malignancy

in the patients with thyroid nodule. Fine needle aspiration cytology (FNAC) and neck ultrasound can provide valuable information to surgeon in diagnosing and treatment strategy for the patients with thyroid mass.

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