

## INTRODUCTION

The normally developed thyroid gland is a bilobed structure that lies immediately next to the thyroid cartilage in a position anterior and lateral to the junction of the larynx and trachea. The two lateral lobes are joined at midline by an isthmus.[1]

The normal thyroid gland weighs 15-25gm, and is attached to trachea by loose connective tissue. [2]

Cancer thyroid is not a common disease. It represents less than 1% of all cases of human cancer. However thyroid neoplasms accounts for 90% of all endocrine malignancies. The annual incidence is about 3.7 per 100,000 of the population and the sex ratio is three females to one male. The mortality should only be of the order of 2.3 %.[3]

The aetiology of thyroid cancer is poorly understood. Irradiation of the neck during childhood and exposure to ionizing radiation from nuclear fall out, as seen in Chernobyl incident have both been associated with an increased incidence. [4,5]

90% of cases of thyroid cancer are well differentiated and include papillary follicular and hurthle cell tumours, the remaining 10% are poorly differentiated compromising anaplastic and medullary cancers and lymphoma. [6]

Non thyroid cancers rarely metastasize into the thyroid Gland. [7]

Diagnostic strategy in thyroid cancer is conditioned by epidemiological, pathophysiological and cost- effective issues changing with age and countries. [8]

The clinical features of malignancy include a fixed, painless, hard thyroid mass, hoarseness, dysphagia and isolated lymph node enlargement sometimes

called (Lateral aberrant thyroid). Significant voice change with evidence of recurrent laryngeal nerve paresis is a strong indicator of malignancy. However presentation due to secondary deposits is rare and benign disease is a far more common cause of a thyroid mass than malignancy. [9]

Cancer thyroid patient should be treated by a team of endocrinologist, pathologist, experience thyroid surgeon, nuclear medicine and external radiotherapy physician to achieve on optimum care and good prognosis. [10]

Treatment of patients with thyroid cancer is usually successful, and most patients are cured of the disease. However therapies for patients with invasive or metastatic thyroid cancer are ineffective if the disease is not surgically resectable and does not concentrate radio- iodine. Conventional external beam radiotherapy and chemotherapy are of marginal benefit. [11]

Current management is largely based on results from large retrospective studies. Identification of critical factors at presentation which affect prognosis is the most reliable guide to treatment. Age at presentation, tumour size, grade, extension beyond the thyroid capsule, and distant metastases at presentation all affect out come. [12,13]

In future enzyme inhibitors may prevent tumour growth. Anaplastic cancer is known to be initiated by mutation in the RAS proto- oncogene. Mutation of P53 gene is almost always present in anaplastic cancer. [14]

## **AIM OF WORK**

The aim of this work is to review diagnosis and management of cancer thyroid for detection, proper assessment and treatment .

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