

Role of Surgically and Histopathological on Treated Thyroid Cancer at Tripoli Medical Center-Libya



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Abstract

In the past several decades an increasing incidence of thyroid cancer has been reported in many parts of the world. In Libya there is a few studies in the field of thyroid cancer in the past years, so we conduct this study to find out the incidence and the clinic pathological presentation of thyroid cancer among patients diagnosed in Histopathology Department at Tripoli Medical center where we review a 210 patients with thyroid cancer in ten years' time from January 2002 till December 2012, There were 176 Female and 34 Male Patients .The histopathological pattern of the disease was 61.43% Papillary cancer, 13.33% Follicular, 7.14% Medullary, 5.24% Hurtle cell Carcinoma, 4.29% lymphoid tumor, 2.3% Anaplastic, and other histological type was 4.76% .We conclude that Thyroid cancer is common in female than male, Overall incidence was Papillary carcinoma (61.43%) and we need to have multicenter studies of thyroid malignancy, to investigate and to know the national pattern and trend of thyroid cancer in Libya .

Keywords: Thyroid cancer; Papillary thyroid cancer; Incidence

Introduction

Thyroid cancer had marked variation in the prevalence all over the world [1,2] it is more common in female compared with male in the third, fourth and fifth decade of life [3] in Iodine-rich areas higher frequency is papillary carcinoma of thyroid gland was noticed [4]. Reported incidence of both benign and malignant lesions in surgically treated thyroid swelling varies widely from one geographically area to other [5,6] and the principle disease of thyroid gland are goiter "diffuse or nodular", hypothyroidism, hyperthyroidism and neoplasm [7], In Libya the incidence of thyroid cancer is 0.9% of all cancer cases and the crude rate per 100.000 Population was 0.65 (Benghazi Cancer Registry 2004). In USA thyroid cancer account for less than 1% of all malignances (2% for women and 0.5% of men) thyroid cancer represented for six death per million person annually [8]. In south Africa 5.4% and Karachi Pakistan 14.35% [4], in Riyadh, Saudi Arabia the studies reported higher incidence of thyroid malignancy ranging from 21% to 29% [4,5,9]. In Nigeria studies showed overall incidence of malignancy 11% and the commonest was [10] follicular

Aim of the Study

The Purpose of this study were to find out the incidence and the clinic pathological presentation of thyroid cancer among

patients diagnosed in Histopathology department of Tripoli Medical Center in ten years' period from January 2002 till December 2012 and to compare it with other studies.

Material and Methods

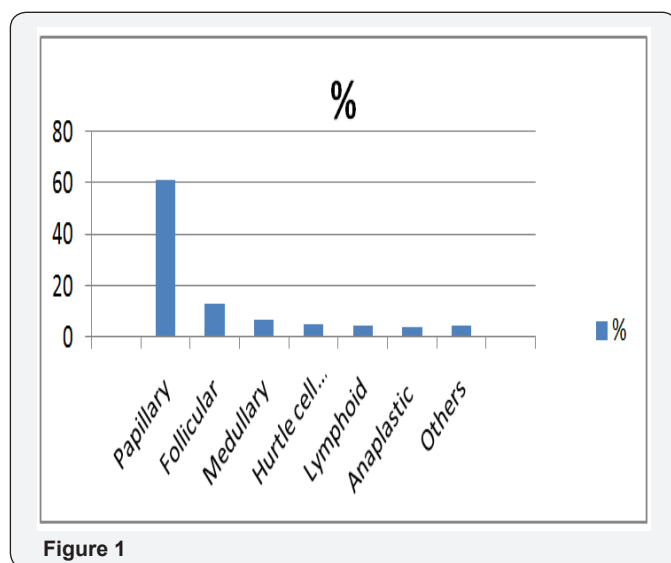
Retrospective study of 210 cases of thyroid cancer diagnosed in Histopathology department at Tripoli Medical Center over 10 year's period from January 2002 till December 2012 .Demographic character (age and gender) clinical information and histological type were analyzed.

Results

Histological patterns of 210 of operated cases of thyroid cancer, were studied we find out that 61.43% had Papillary cancer, 13.33% had Follicular, 7.14% had Medullary, 5.24% had Hurtle cell Carcinoma , 4.29% had lymphoid tumor, 2.3% had Anaplastic and other histological type was 4.76% (Table1). The mean age of patient was 45 years (Rang 15-84) years and there were 176 female (83.8%) and 34 Male (16.2%) the female to male ratio was 4:1 The mean age for Anaplastic was 64 years of age and 40 ,34,34,55 years for Papillary, Follicular, Medullary Hurtle cell tumors respectively (Table1) (Figure1).

Table 1: Clinical data of histopathology and percent, mean age sex.

Histopathology	No	%	Mean Age	Sex
				F/M
Papillary	129	61.43	16-84	114/15
Follicular	28	13.33	25-84	25/3
Medullary	15	7.14	15-85	3-Jun
Hurtle cell carcinoma	11	5.24	45-84	2-Jun
Lymphoid	9	4.29	35-85	4-Jul
Anaplastic	8	3.81	45-84	5-Oct
Others	10	4.76	15-84	2-Aug
ALL	210	100	15-85	176/34



Discussion

Thyroid cancer is relatively rare neoplasm worldwide accounting for approximately 1-5% of all cancer in female and less than 2% in male [11] Although the incidence of thyroid cancer is relatively rare it is the most endocrine malignancy worldwide [11]. While the international incidence varies considerably, a fairly consistent female to male ratio 3:1 is observed in almost all areas and ethnic groups [12]. Thyroid cancer in Saudi Arabia were ranked as a second among female population and fourteenth among male with ratio between female and male of 2:1 [13] and the histopathological pattern in Saudi were Papillary carcinoma constituted the majority of cases 50% followed by follicular carcinoma 4.3% , Lymphoma 1.1%. Lymphocytic thyroiditis with papillary carcinoma 9.8 % and others 34.7% [14]. Thyroid tumors usually present as a one side painless thyroid nodule in a clinically euthyroid patient. In Libya the histopathological type of Thyroid cancer was: papillary carcinoma 46.6%, followed by follicular carcinoma 45% and medullary carcinoma 4.4% and anaplastic 5% [15] but in recent studies in Libya it was in 2003 that papillary carcinoma form 65%, follicular carcinoma 24.5% , medullary 6.3% and anaplastic 2.1% [16]. The common use of fine needle aspiration technology

in late 1980, is the most cost effective and available method for identifying thyroid tumors [17] and with combination of thyroid ultrasound examination has facilitated the diagnosis of smaller thyroid tumors [18] and assessment of thyroid nodule to diagnose occult thyroid carcinoma [19]. Large retrospective studies have suggested a tendency for improved out comes over the past few years. This is thought to be a consequence of the increasing use of total thyroidectomy and I131 ablation, as well as other factors such as the use of serum thyroglobulin to monitor for recurrence and more effective suppression of thyroid stimulating hormone levels in the blood [20,21]. In contrast ,The present study compared with other studies in Libya we find that 61.43% had Papillary carcinoma, it is higher than in 1988 were it was 46.6% and nearer the same with 2003 were it was 65% 13.33% had Follicular carcinoma it is lower than the study in 1988 were it was 45% and also in 2003 were it was 24.5%, 7.14 % had Medullary carcinoma in comparison with 1988 were it was 4.4% and in 2003 it was 6.3%, 5.24% had Hurtle cell Carcinoma , 4.29% had lymphoid tumor, 2.3% had Anaplastic in comparison with 1988 were it was 5% and in 2003 it was 2.1% , and other histological type was 4.76%. The study show a relative higher incidence of Papillary carcinoma as well as Follicular carcinoma but in Nigeria the Follicular type was the commonest type of Thyroid cancer and in Saudi Arabia papillary carcinoma form only 50% of the cases. This is going with changing pattern of thyroid cancer [22]. In our study there is increase of thyroid cancer in female were we find the ratio between female and male was 4:1 were it was in Saudi Arabia 2:1 and the international figure is 3:1. This finding is going with the international incidence of thyroid cancer in almost all areas and ethnic group. The mean age of our group of patients was similar to that reported in other areas.

Conclusion

The study presented the clinic-pathological pattern of thyroid cancer in 10 years' period from January 2002 till December 2012 at Tripoli Medical Center which work as the main Hospital in the west of Libya. Thyroid cancer is common in female than male and Overall incidence was Papillary carcinoma (61.43%) and we need to have multicenter studies of thyroid malignancy, to investigate the national pattern and trend of thyroid cancer in Libya.

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