

DIFFERENTIATED THYROID CANCER IN CHILDREN AND ADOLESCENTS: A RETROSPECTIVE STUDY

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INTRODUCTION

Differentiated thyroid cancer (DTC) is rare in children and adolescents, its incidence has gradually increased due to overdiagnosis. DTCs occurring in children/adolescents are not associated with a higher mortality rate because the response to treatment. The present study was to evaluate the prevalence of Differentiated thyroid cancer in children and adolescents. A retrospective study.

AIM OF THE WORK

The aims of the study was:

- To determine the prevalence of differentiated thyroid cancer in children (DTC) and adolescents in Head and Neck Unit, Department of Surgery at Main Alexandria Hospital and Medical Oncology Department.
- To identify the different clinical and pathological characteristics among children and adolescents with DTC.
- To evaluate the appropriate surgical treatment of differentiated thyroid cancer in children and adolescent.

SUBJECTS AND METHODS

Total thyroidectomy were done for 50 differentiated thyroid cancers. Ultrasound was done for All cases without Chest X-ray. In the present study we report the characteristics and outcome of a series of differentiated thyroid cancers.

RESULTS

Positive Lymph node involvement was 62.0 % and 38.0 % Negative. mean TSH was 3.27 ± 2.06 , mean T4 was 1.24 ± 0.41 , mean T3 was 3.56 ± 1.10 , and mean Thyroid antibodies was 49.48 ± 29.07 . 96.0 % of cases showed Papillary and only 4.0% was Follicular. 12.0 % of cases showed Recurrence without metastasis in Bone, Visceral, or Both. there was a statistically a non-significant difference between Recurrence and Gender, Age, Histological type, TSH, T4, T3, Thyroid antibodies, and Postoperative thyroglobulin level. 100.0 % of positive Lymph node involvement showed recurrence.

Table 1: Relation between Recurrence and different parameters

	Recurrence					
	No (n =44)		Yes (n =6)		Test of Sig.	p
	No.	%	No.	%		
Gender						
Male	1	2.3	0	0.0	$\chi^2=$ 0.139	^{FE} p= 1.000
Female	43	97.7	6	100.0		
Age (years)						
Min. – Max.	8.0 – 18.0		10.0 – 18.0		t= 0.134	0.894
Mean ± SD.	15.86 ± 2.22		16.0 ± 3.16			
Median	16.0		17.50			
Family history						
Negative	44	100.0	6	100.0	–	–
Positive	0	0.0	0	0.0		
Side						
RT	19	43.2	5	83.3	$\chi^2=$ 3.410	0.065
LT	25	56.8	1	16.7		
Lymph node involvement						
Negative	19	43.2	0	0.0	$\chi^2=$ 4.179*	^{FE} p= 0.048*
Positive	25	56.8	6	100.0		
Histological type						
Papillary	43	97.7	5	83.3	$\chi^2=$ 2.849	^{FE} p= 0.228
Follicular	1	2.3	1	16.7		
TSH	3.08±2.07		4.63 ± 1.45		U = 75.0	0.092
T4	1.25± 0.41		1.16± 0.41		U = 113.0	0.590
T3	3.60± 1.09		3.26± 1.23		U = 105.0	0.439
Thyroid antibodies	48.45 ± 29.26		57.07± 28.98		U = 110.0	0.530
Postoperative thyroglobulin level	40.88±22.08		28.25± 14.06		U = 85.0	0.169

Table 2: Distribution of the studied cases according to pathological criteria (n = 50)

Pathological criteria	No.	%
Histological type		
Papillary	48	96.0
Follicular	2	4.0

Table 3: Distribution of the studied cases according to operative details (n = 50)

Operative details	No.	%
Type of surgery		
Total thyroidectomy	50	100.0
Hemithyroidectomy	0	0.0

CONCLUSION

- Total thyroidectomy with selective lymphadenectomy appears to be the treatment of choice in young patients with differentiated thyroid cancer. Pediatric DTCs response to treatment is better and their outcome is more favorable.