

CLINICAL FEATURES IN CHILDHOOD GRAVES' DISEASE

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INTRODUCTION

Hyperthyroidism is a disorder of the thyroid function in childhood that causes symptoms such as low school performance, headache, hyperactivity, palpitations, systolic hypertension, heat intolerance, diarrhea, weight loss in spite of tremendous appetite and tremor. Hyperthyroidism is very rare in childhood. Graves' disease is responsible for 84% of pediatric cases and is the most common cause.

METHOD

The demographic characteristics, referral complaints, physical examination findings, laboratory findings, ultrasound findings and treatments of Graves cases in Gazi University Pediatric Endocrinology Department between 1990-2016 were examined retrospectively.

RESULTS

Among 24 individuals diagnosed with Graves' disease 87.5%(n:21) were girls and 12.5%(n:3) were boys with a mean age of 10.7 years.(min 3.6 years- max 16.5 years). The most frequent complaints among the cases were palpitation (50%), followed by irritability, sweating, weight loss (41.7%) and the rarest heat intolerance. When physical examinations findings were examined, 66.7%(n:16) cases of tachycardia was observed, with hypertension at 41.7%(n:10), tremor at 25% (n:6), goiter at 29.2% (n:7), and 50% (n:12) ophthalmopathy was detected. Of the cases, while 45% (n:11) were prepubertal, 54.2% (n:13) were pubertal. The comparison of symptoms of the pubertal and prepubertal according to examination and laboratory findings of the cases are given in Table 1. Thyroid ultrasonography revealed 54% (n:13) cases of goiter, with parenchymal heterogeneity at 95.8% (n:23) and parenchymal homogeneity found to be 4.2%(n:1). In all cases, 54% (n:13) of them with medical treatment were treated with block-replacement therapy, 2 patients who did not benefit from the treatment were treated with radioactive iodine and 2 other patients with surgery therapy.

	Prepubertal	Pubertal	p
Male	0 (%0)	3 (%23,1)	0,089
Female	11 (%100)	10 (%76,9)	
SYMPTOMS			
Palpitation	7 (%63,6)	5 (%38,5)	0,219
Irritability	3 (%27,3)	7 (%53,8)	0,188
Sweating	2 (%18,2)	8 (%61,5)	0,032*
Tremor	1 (%9,1)	4 (%30,8)	0,193
Heat intolerance	0 (%0)	2 (%15,4)	0,194
Weight loss	5 (%45,5)	5 (%38,5)	0,729
Diarrhea	2 (%18,2)	2 (%15,4)	0,855
Swollen neck	1 (%9,1)	3 (%23,1)	0,360
Hyperkinetic Aktivity	0 (%0)	1 (%7,7)	0,347
Sleeplessness	0 (%0)	4 (%30,8)	0,044*
Exophthalmous	5 (%45,5)	4 (%30,8)	0,459
PHYSICAL EXAMINATION			
Hypertension	4 (%36,4)	6 (%46,2)	0,628
Tachycardia	7 (%63,6)	9 (%69,2)	0,772
Tremor	3 (%27,3)	3 (%23,1)	0,193
Ophthalmopathy	6 (%54,5)	6 (%46,2)	0,682
Goiter	8 (%72,7)	10 (%76,9)	0,813
LABORATORY			
Anti -thyoglobulin	5 (%45,5)	10 (%76,9)	0,113
Anti TPO	8 (%72,7)	12 (%92,3)	0,200
TRAB	11 (%100)	7 (%58,3)	0,016*

DISCUSSION

While Graves' disease was common in children during puberty period, the number of prepubertal and pubertal cases in our study was similar. The most frequent symptom was palpitation and the most common physical examination was tachycardia. Ophthalmopathy was seen in 50% of the cases. Thyroid parenchymal features were an important parameter in the differential diagnosis of hyperthyroid. Parenchyma heterogeneity was detected in 95.8% of our cases in spite of the parenchyma is generally homogenous in thyroid ultrasonography of Graves cases.

