

EVALUATION OF TRANSIENT HYPOTHYROIDISM IN PATIENTS DIAGNOSED AS CONGENITAL HYPOTHYROIDISM

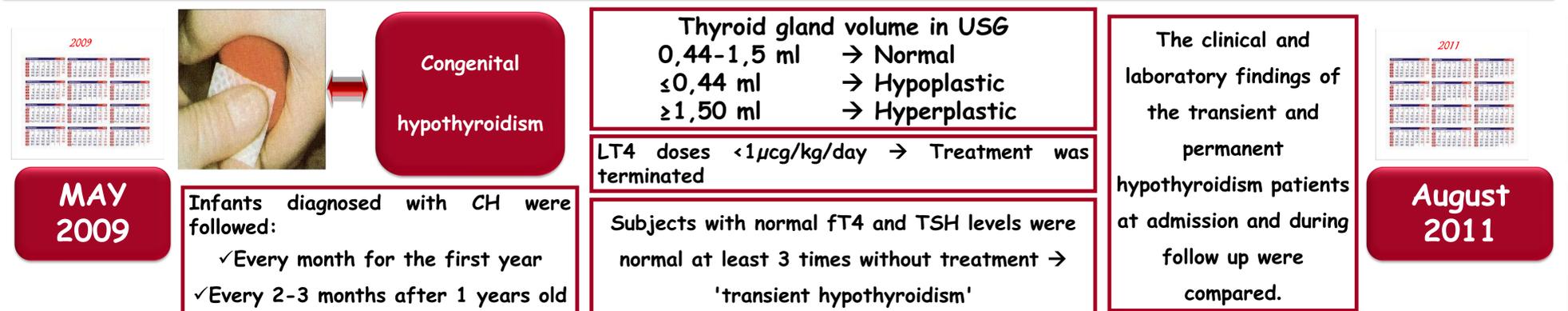
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BACKGROUND AND AIM

Congenital hypothyroidism (CH) is divided into two groups as 'permanent' and 'transient'. Diagnosis of transient hypothyroidism is important to avoid lifelong unnecessary therapy with its possible side effects. The financial burden for this unnecessary therapy could also be invested in other health care services. In this study we aimed to determine the rate of transient and permanent congenital hypothyroidism of the newborns referred to our clinic.

SUBJECTS AND METHOD



RESULTS

256 newborns were referred to our clinic from neonatal screening programs

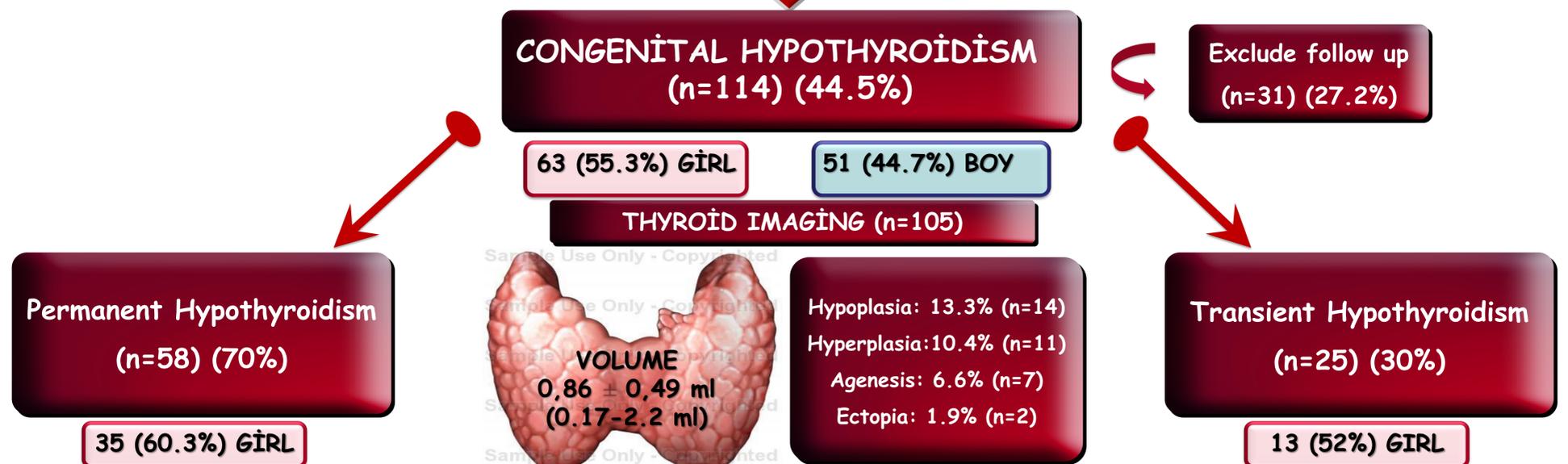


Table I: The characteristics of hypothyroidism patients at admission

	mean ± SD	Min - max
Day of application	21.3 ± 10.2	4.0 - 75.0
Day of Screening	8.44 ± 5.93	1.0 - 25.0
Neonatal TSH (µIU/ml)	48.1 ± 28.3	15.1 - 111.8
Serum TSH (µIU/ml)	55.2 ± 33.85	10.7 - 150.0
Serum TT ₄ (µg/dl)	6.42 ± 2.98	1.00 - 13.4
Serum fT ₄ (ng/dl)	0.82 ± 0.42	0.3 - 2.1
Thyroid volume (mm ³)	0.86 ± 0.49	0.17 - 2.2
Time of the treatment initiation (day)	19.7 ± 8.30	5 - 60
Treatment duration (month)	24.7 ± 12.9	2 - 50
Treatment dose (µg/kg/day)	2.29 ± 1.33	0.9 - 8.25
Follow-up duration (month)	27.7 ± 12.9	3 - 51

Table II: The characteristics of patient groups with transient and permanent hypothyroidism (mean ± SD) (min-max)

Characteristics	Permanent hypothyroidism (n = 58)	Transient hypothyroidism (n = 25)	P
Day of application	19.2 ± 9.1 (6.0 - 64.0)	21.5 ± 9.08 (4.0 - 43.0)	0.828
Day of Screening	6.7 ± 5.7 (1.0-22.0)	9,8 ± 5,6 (1.0 - 21.0)	0.762
Neonatal TSH (µIU/ml)	52.4 ± 31.2 (15.1 - 111.8)	38.4 ± 20.5 (15.2 - 98.0)	0.002
Serum TSH (µIU/ml)	60.7 ± 37.1 (10.7 - 150)	42.5 ± 18.3 (19.7 - 75)	0.002
Serum TT ₄ (µg/dl)	6.2 ± 2.9 (1.0 - 12.7)	7.3 ± 2.7 (2.0 - 12.3)	0.464
Serum fT ₄ (ng/dl)	0.7 ± 0.3 (0.3 - 2.2)	0.7 ± 0.2 (0.3 - 1.3)	0.139
Thyroid volume (mm ³)	0.8 ± 0.5 (0.1 - 2.2)	0.9 ± 0.4 (0.5 - 1.2)	0.558
Time of the treatment initiation (day)	18.9 ± 7.7 (6.0 - 47.0)	21.8 ± 8.0 (10.0 - 43.0)	0.860
Treatment duration (month)	29.2 ± 11.0 (3.0 - 50.0)	18.1 ± 11.5 (2.0 - 43.0)	0.842
Treatment dose (mcg/kg/day)	2.2 ± 1.3 (0.9 - 8.2)	0.6 ± 0.3 (0.6 - 0.9)	0.004
Follow up duration (month)	29.5 ± 11.1 (3.0 - 51.0)	32.5 ± 11.1 (12 - 50)	0.921

CONCLUSION

In this study we determined that 30% of CH patients diagnosed in neonatal screening program had transient hypothyroidism. Diagnosing transient hypothyroidism is important to avoid lifelong unnecessary therapy.