O-013 - NEONATAL HYPERTHYROTROPINAEMIA: LOOKING AT THE END OF THE CONGENITAL HYPOTHYROIDISM SPECTRUM

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INTRODUCTION: TSH based neonatal screening (NS) for congenital hypothyroidism (CH) was initially designed to detect severe forms preventing their mental impairment. Nevertheless, when TSH cutoff level is lowered a wider spectrum of disorders may be identified. In them serum determinations may show hyperthyrotropinemia (HTT) defined as a slightly elevated TSH with normal thyroxine (T4) and Free thyroxine (FT4) for the reference age values, suggesting mild and compensated CH. It is not clear if this picture is harmful for neurocognition and no consensus is found in the literature about its management. ***OBJECTIVE:*** To prospectively evaluate and follow up NS detected patients with HTT describing their clinical features, perinatal history, thyroid profile and images. ***PATIENTS AND METHODS:*** We included NS detected patients referred to our center for confirmation who showed HTT (serum TSH between 9 y 20 uU/ml and normal FT4). Patients were clinically evaluated and followed by a pediatric endocrinologist. Initial thyroid serum profile was assessed in mothers and children and biochemical controls and a Tc99 thyroid scintigraphy were performed according to individual characteristics. ***RESULTS:*** From 12-2016 to 11-2018, 34 patients were enrolled (median age (range): 14.5 days (7-30)). 62% had been exposed to iodide. All were asymptomatic. 1 presented goiter. Median (range) of initial TSH was 13.3 uUI/ml (9-20), T4 11.95 ug/dl (7.6-17.8), T4l 1.6 ng/dl (1.06-2.13), 41% had high TG levels. In 23 evaluated patients 22 eutopic glands and 1 goiter were evidenced on scintigraphy. During follow up 2 groups could be observed: a) Those with transient HTT (n: 20) that achieved normality at a median age of 1 month (0.5-11), b) Those still on follow up (N: 14): 6 with stable HTT that did not received treatment and 8 treated with LT4 on individual bases as: increasing TSH levels , goiter or decreasing thyroid hormones. Neurologic development was always normal. ***CONCLUSIONS:*** Neonatal HTT detected through NS represents the tail of a milder spectrum of disorders with still unknown consequences. In our cohort more than half of them were transient.Nevertheless studies have to be extended to characterize this population.