Evaluation of Meteorin-like (Metrnl), Profile Hormones and Other Biochemical Variables in Iraqi Hypothyroidism children

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ABSTRACT

Adipose tissue browning and energy expenditure are regulated by thyroid hormone and Meteorin-like (Metrnl). Given their many comparable modes of action, it would seem necessary to investigate how these chemicals might affect the body in tandem.This research aims to assess Metrnl serum, Profile hormones, and other Biochemical Variables in prepubertal patients with hypothyroidism and pubertal patients with hypothyroidism. Ninety participated in this study. Sixty children with Hypothyroidism were divided into two groups: thirty(G1) pre-pubertal with hypothyroidism, thirty(G2) pubertal with hypothyroidism, and thirty(G3) healthy controls. A highly significant different decrease at (P <0.001) was noted between the study groups for (D3, TT4 and FT4). A highly significant increased (P < 0.001) was noted between G1 and G3, and between G2 and G3, for TSH. Increased significant difference (P < 0.05) was observed for every one of BMI, FBS, TC, TG, non-HDL-C, and LDL-C among the study groups. A significant increase was recorded between study groups for cortisol (P < 0.05), and a highly significant increase was observed for IGF-1 and PTH (P < 0.01). There was a significant difference (P < 0.05) in Meteorin-like (Metrnl) levels among the study groups. Conclusion: It can be concluded that decreased levels of meteorin-like (Metrnl) in pre-pubertal and pubertal hypothyroid patients may have a future impact on the early-onset diseases like diabetes and heart diseases in children and adolescents, because Metrnl has an influential role in enhancing energy expenditure in metabolic diseases. Also profile hormonal imbalance in children with hypothyroidism is a factor affecting metabolism, leading to disease.

Keyword: Hypothyroidism, hormone profile, lipid profile, meteorin-like (Metrnl), pre-pubertal and pubertal.

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