Annals of Clinical Endocrinology and Metabolism

Volume - 8, Issue - 1

Research Article **Published Date:- 2024-07-31**

Physical Performance in the Overweight/Obesity Children Evaluation and Rehabilitation

Introduction: Childhood obesity is one of the current themes of medical research, being considered not so much a multidimensional condition but primarily a real problem of worldwide interest.
The aim of our randomized study was to evaluate and compare the effects of physical exercise associated with an educational program on clinical-functional status in overweight and obese children.
Material and method: Participants were children hospitalized, through the emergency service, in the Pediatric Department, Craiova Municipal Clinical Hospital, between June and November 2023. 93 overweight and obese children, aged between 2 and 16 years, were evaluated (clinical, paraclinical and functional) by a multidisciplinary team and randomized into the control group (group C – 63 children) and the study group (group S – 30 children). After the resolution of the acute digestive or respiratory disease, the children in group S underwent a program to restore their functional status, based on educational measures (following the 5-2-1-0 rule) and physical exercises, for 12 weeks. Anthropometric data were measured (height, weight, body mass index); physical performance wasevaluated by gait analysis (we used the BTS G – WALK / BTS G – SENSOR 2 system, BTS Bioengineering Corp, Italy) with the determination of four parameters – the Timed Up-and-Go (TUG) test, the symmetry index, the walking test six minutes (6 MWT) and walking cadence or average cadence (steps/min) in both groups of children. The results were obtained by analyzing the differences in values obtained in the two moments T1 (initial) and T2 (after three months). The proportion of girls and boys was approximately equal within obesity class in each study group. Although we did not obtain statistically significant differences between the monitored parameters, between the two groups, for the two evaluation moments, the children in Group S had a clearly favorable evolution for physical performance parameters, whose average value was improved in T2. Anthropometric data did not change.
Conclusion: The present study confirms the effectiveness of the multimodal (educational-kinetic) program for the physical performance of overweight/obese children. The sustained running of the program at home, with the involvement of the family and the school environment, is essential for the well-being of these children, with a favorable impact on the quality of life later.

Case Report **Published Date:- 2024-05-15**

Hypercalcaemic Crisis Associated with Hyperthyroidism: A Rare and Challenging Presentation

A 51-year-old female with a history of multinodular goitre presented with vomiting, abdominal discomfort, and generalized tiredness. Investigations revealed hypercalcemia (ionized calcium 1.41 mmol/L), hypokalaemia, suppressed parathyroid hormone, and significantly elevated free thyroxine (> 7.77 ng/dL) with a suppressed thyroid-stimulating hormone level consistent with hyperthyroidism. Further, the workup confirmed Graves' disease as the underlying aetiology. Hyperthyroidism is occasionally associated with mild to moderate hypercalcemia, but severe hypercalcemia or hypercalcaemic crisis is an extremely rare complication. Prompt recognition and treatment are crucial to prevent life-threatening complications. The patient was treated with intravenous fluids, a low-calcium diet, zoledronic acid, carbimazole, and a beta-blocker, leading to improvement in her condition. This case highlights a rare occurrence of hypercalcaemic crisis in a patient with thyrotoxicosis due to Graves' disease. Hyperthyroidism-induced hypercalcemia requires prompt recognition and multidisciplinary management involving endocrinologists, internists, and critical care specialists to prevent potentially life-threatening complications. Healthcare providers should consider the hypercalcaemic crisis in the differential diagnosis of hypercalcemia in the context of hyperthyroidism.
