3. The magnitude of this are in direct relationship with the degree of obesity and age.

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OBESITY-THERAPY AND SELF-REGULATION IN CHILDREN FROM AGE 8 TO 17 YEARS OVER 10 YEARS

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Background and aims: Since 1997 we carry out the treatment program for children from age 8-12 years and adolescents from age 13-17 years with their parents. The goal is to learn self-control and self-regulation of eating behaviour, to obtain better physical fitness and slithly bodyweight reduction.

Methods: Because the psycho-social problems are often overlooked and focusing on the long-term physical health, there is an emerging evidence to show the association between the psychological problems and obesity of the children and adolescents.Our obesity-therapy (>P.97) is concipatied over 3 years for children and parents. The program includes in the first year 1 times / week education in behaviour modification and nutrition by a psychologist and nutrition by a psychologist and nutritionist, the same happens with the parents in a way of family-therapy. The children participate in 3-times a week of different physical fitness in the first year.

Results: In an on-going-study we can report over 400 children of our therapy-Program that based on the 7-Phase-Mode of Kanfer. After 3 years there is an reduction of BMI-SDS 2,7±0,5 kg/m^2 to 2,1±0,8 kg/m^2. 43 % have a reduction of 0,2 and 29 % of BMI-SDS < 0,5. 72 % of all children and adults have positive results.

Conclusion: The results of the T.O.M.-program indicate that long term weight-control is feasible in children and adolescents and is worthwhile as a wide range of improvements in risk faktors and self-confidence can be demonstrated.

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ECTOPIC NEUROHYPOPHYSIS - CASE REPORT

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Background: Ectopic Neurohypophysis is a rare congenital anomaly of the pituitary gland associated with growth hormone and other anterior pituitary hormone deficiencies.

Aims: To report a case of hypopituitarism due to ectopic neurohypophysis presenting with hypoglycemic seizures.

Case report: A 7-year-old Romanian boy was admitted to our hospital with a generalized tonic-clonic seizure associated with severe hypoglycemia (25mg/dL). His past medical history was remarkable for a perinatal history of asphyxia; congenital left eye strabismus; and three previous episods of hypoglicemic seizures with inconclusive metabolic and neurologic investigations. He was under treatment with carbamazepine for 3 months.

According to his mother he had also language delay and growth retardation.

The physical examination revealed a boy with a hoarse tone voice, dry skin, brittle hair, cold extremities and left eye convergent strabismus. His height was in the 3rd percentile (target height between 75th- 85th percentile).

Laboratory studies showed hypercholesterolemia, normal values of ACTH, cortisol and TSH but abnormal low values of free T4 and IGF-1. Antithyroglobulin and antiperoxidase antibodies were negative.

Abdominal and thyroid ultrasounds were normal. Left wrist X-ray revealed a bone age of 4 years.

The brain MRI showed an ectopic neurohypophysis. The pituitary stalk was not seen.

The patient started thyroid hormone replacement therapy and has been proposed for recombinant human growth hormone.

Conclusion: This case emphasizes the need for a careful clinical and imagiologic investigation in children presenting with signs of pituitary hormone deficiency.Early diagnosis can prevent further evolution and complications of hypopituitarism.

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MEASUREMENT OF HEPATIC TISSULAR RSO_2 USING NEAR INFRARED SPECTROSCOPY AS A WITNESS OF HEPATIC TUMOR REGRESSION

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Backgroundandaims: NearInfraRedSpectroscopy (NIRS) is a tool for evaluation of local blood flow and oxygen consumption (VO2) using measurement of regional oxygen saturation (rSO2).

Purpose: To describe the feasibility and accuracy of the measurement of hepatic rSO_2 (lirSO2) in an infant with tumoral syndrome in acute leukemia.

Methods: A 7 weeks old girl was admitted with asthenia, bleeding, respiratory distress and hepatomegaly. Hemogram showed 117000 leucoblasts/mm^3, Hb=7.1g/100 ml, 24000 platelets/mm^3. Blood gaz analysis showed : pH=7.37, HCO3-=18 mmol/l,PaCO2=31 mmHg and lactatemia=888 mg/l. Sonography showed a heterogeneous hepatomegaly. Diagnosis of acute monocytic leukemia (AML-M5) was made. Chemotherapy was started (ELAM 02 protocol). Infant was monitored using cardiac monitoring, continuous measurement of oxygen saturation (SpO2) and invasive blood pressure. CerSO2 and lirSO2 were measured using NIRS. rSO2 values were recorded every 6 seconds, hemoglobin and central venous SO2 (SvO2) in *vena cava superior* every 6 hours.

Results: rSO2 measurement began 10 hours after the first chemotherapy (H0). SpO2 value was 96.4±2.0%, cerSO2 was 75.8±3.9% SvO2 values were stable around 70%, suggesting that there was no variation in systemic oxygen transport (TO2). lirSO2 value at H0 was 24.7±7.6% and raised up to 74.0±2.5% at H12.

Conclusions: NIRS provides a non-invasive assessment of lirSO2 in acute hemopathies. The decrease in lirSO2 could be the witness of tissular hypoxia induced by myeloproliferation. Our data show an increase in lirSO2 under chemotherapy. NIRS could be helpful to evaluate the decrease in VO2 and the improvement of TO2 during chemotherapy.

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6-MERCAPTOPURINE INDUCED SYMPTOMATIC HYPOGLYCAEMIA IN CHILDREN WITH ACUTE LYMPHOBLASTIC LEUKAEMIA

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Background & aims: Although the most common cause of SH in paediatric acute lymphoblastic leukaemia (ALL) is over-treatment of hyperglycaemia with insulin, it is also associated with thiopurine usage. The aim of this study was to document the incidence of 6-mercaptopurine (6MP)-related symptomatic hypoglycaemia (SH) in paediatric patients undergoing maintenance treatment for ALL.

Methods: We retrospectively reviewed patients with childhood ALL at our centre to identify those with a history of SH. Hypoglycaemia was defined as a blood glucose level of ≤ 2.7mmol/l. The mode of presentation, fasting times and laboratory investigations were documented.

Results: Three patients, 1 male and 2 female, were identified from 200 children enrolled in the current MRC-ALL 2003 treatment protocol using 6MP as the sole purine analogue during continuation therapy. The median age at presentation was 3.8 years (range 1.6-4.9) and the median time from commencing 6MP treatment was 107 days (range 82-479). All three presented with seizure-like events and required hospital admission. Fasting times were clearly documented in 2 patients at 15.5 and 12 hours. Critical samples were obtained in all three. All demonstrated an appropriate ketosis with normal gluconeogenic precursors. No definitive endocrine or metabolic abnormality was identified.

Discussion: The mechanism of 6MP-induced SH remains unclear but impaired gluconeogenesis has been hypothesised. Dose modification or discontinuation of 6MP deviates from best practice. Repeated fasting for anaesthesia is the norm for this population. Where possible, fasting times should be limited, and large evening and early-morning meals