

SERUM BETA-ENDORPHIN AND CORTISOL CHANGES IN CHILDREN WITH SIMPLE OBESITY DURING BODY MASS REDUCTION

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The results of experimental examinations suggest hypothalamic control disturbances of beta-endorphin (β -E) and ACTH secretion within hypophysis. Material and methods. Therefore, morning plasma β -E (pmol/L) / RIA Kit Incstar Corp. / and cortisol (nmol/L) / FPIA Abbot / levels in 30 children (10-16 yr. old) with simple obesity (body mass > 97 c, mean BMI=39) and 30 healthy peers were determined before and after 3 months lasting treatment when 10% body mass reduction was obtained.

Results. In healthy children mean β -E levels were: $8,43 \pm 1,4$, and cortisol = $480,24 \pm 57,9$. In children with obesity β -E levels (M.= $12,87 \pm 2,3$) and cortisol levels (M.= $686,41 \pm 71,7$) were increased, and next have been decreasing (β -E= $6,32 \pm 1,2$; cortisol= $400,77 \pm 50,6$) at the same time with body mass reduction.

The normalizing tendencies concerned over 80% of treated children. Conclusion: In children with simple obesity increased β -E and cortisol levels tend to normalize at the same time with body mass reduction.

This situation suggests that there is a need to pay more attention into dynamics of presented before changes during treatment.

