EVALUATION OF LEPTIN LEVEL IN THE BLOOD SERUM IN CHILDREN AT AN EARLY AGE

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ACTUALITY OF THE PROBLEM

It is known that obesity begins in early childhood, when the foundations of eating behaviour and metabolic processes are formed in the organism.

OBJECTIVE

To investigate leptin level in the blood in children of an early age with excessive body mass (EBM) and obesity.

PATIENTS AND METHODS

We have conducted a complex examination of 120 children of an early age at risk of developing an EBM, EBM, obesity. The examined children were divided into groups according to the results of evaluation of physical development: the 1st group included children at risk of developing EBM (38 children (31,6%); the 2nd group included children with EBM (42 children (35,0%); the 3rd group included children suffering from obesity (40 children (33,4%)).

RESULTS

We have discovered a reliable elevation of leptin level in children suffering from EBM and obesity (7,83±0,76 ng/ml and 21,6±4,60 ng/ml respectively) in comparison with the indicators in children at risk of developing EBM (4,47±0,25 ng/ml) and in children in the control group (2,90±0,21 ng/ml), (p<0,05).

Special attention was given to the reliable difference between the values of leptin levels in the examined children depending on their sex. Thus, in girls of the main group the level of leptin was reliably higher if compared to the leptin level in boys, (p<0,05).

In order to analyze the obtained results we studied the correlation between the values of body mass index and the level of leptin in the examined children. As a result of the conducted study we investigate the correlation between leptin and body mass index (r=0,35; p<0,05) in children at risk of developing EBM, in children having EBM (r=0,4; p<0,05) and in children suffering from obesity (r=0,57; p<0,05).

CONCLUSIONS

It has been established that the level of leptin in children of an early age depends on the body mass and sex of the children. Thus, children with obesity have a reliably higher level of hormone in comparison to the children with excessive body mass. It has been found that the level of leptin in girls is reliably higher if compared to the level of leptin in boys.

The role of leptin level in the development of obesity in children of an early age is confirmed by close correlation with body mass index. The elevated level of leptin in children of an early age at risk of developing EBM and suffering from EBM is a possible predictor of obesity development.

PREVENTION OF FOETAL ALCOHOL SPECTRUM DISORDERS – THE ROLE OF THE PAEDIATRICIAN

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It is estimated that about 600 Irish babies are born each year with Foetal Alcohol Syndrome (FAS), and that over 40,000 Irish persons live with the condition. Foetal Alcohol Spectrum Disorders (FASD) including FAS are a consequence of alcohol induced brain damage which is permanent and associated with physical, mental, educational, social, behavioural difficulties. ‘Children with FASD fill our Foster Care places. Adults with...