27%, considering vitamin D status it was not significant. However, the linear relationship was between waist circumference and serum vitamin D (p < 0.01). The mean and standard deviation of vitamin D serum in girls and boys were 22/76 ± 11/62 and 23/46 ± 9/30 nmol/L and this difference was not significant.

Conclusions There was high prevalence of vit D deficiency in 2 to 7 years old. There was no significant relationship between BMI and vit D, but it was recorded in waist circumference with vitamin D level.

PO-0084 | VARIOUS PATHOGENETIC VARIANTS PROGRESSION OF OBESITY IN ADOLESCENTS

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Methods We have conducted clinical, functional and laboratory examination of 104 adolescents 11–18 years with a primary abdominal obesity. The body mass index (BMI) of all children exceeded 95 percentile. It was studied the reaction of the brachial artery in the process of conducting endothelial test with reactive hyperemia and calculated of percentage flow-mediated dilation (%FMD).

Results In 66% (n = 67) cases in adolescents identified endothelial dysfunction on the basis of positive endothelial samples (FMD <10%).

A further analysis was performed among children with dysfunction of endothelium of the brachial artery. The children were divided in to 2 groups: group A (n = 31) - children with stable essential hypertension;group B (n = 36) - children with labile hypertension or normal blood pressure.

In adolescents of the group A with a moderate increase in the percentage content of fat mass (M=31.4 ± 4.7%) disorders in the blood are recorded: hyperglycemia –16,6%, hypercholesterolemia in 4%, hyperinsulinemia in 27%, with the development of insulin resistance in 17%. Children of group B were characterised by significantly more pronounced disorders in the blood. They registered with a higher percentage of body fat in the body (M = 39.45 ± 4.4%). Hyperglycemia was reported in 33% (p = 0.04), hypercholesterolemia at 33% (p = 0.04), hyperinsulinemia at 45% (p = 0.041) with the development of insulin resistance in 30% (p = 0.042).

Conclusions The analysis of groups allows defining a primary factor that causes dysfunction of endothelium at obesity (high blood pressure or hyperinsulinemia), as well as to suggest which of the pathogenetic variants may further progress obesity: essential hypertension or diabetes type 2.

PO-0085 | ASSESSMENT OF RISK OF OBESITY IN CHILDREN AT BIRTH IN THE RUSSIAN FEDERATION

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Purpose We evaluated the risk of obesity in newborns in a large industrial city in the Russian Federation, were born in 2014.

Methods We conducted a survey of 100 mothers of infants with an adapted original questionnaire «Predicted probability of childhood obesity from traditional risk factor». The questionnaire included a value of body weight at birth, the factor of maternal smoking during pregnancy, body mass index (BMI) of the parents, the professional status of the mother and the number of family members living together. We calculated the risk of obesity in children using the online calculator «files-good.ibl.fr/childhood-obesity». The risk of obesity is carried out in compliance with recommendations (Morandi *et al*. 2012).

Results We found that 14% of newborns at high risk (risk > 50%), and 28% - medium risk (risk of 25–50%) in the development of obesity. Thus, 42% of infants in need of an obesity prevention. The statistical analysis (STATISTICA, Ver.10, Correlations Spearman, p ≤ 0.05) allowed us to establish a stable relationship the risk of developing obesity with birth weight (r = 0.43) and maternal BMI by the end of pregnancy (r = 0.37), indicating the importance of antenatal metabolic programming in its development.

In our research we didn't receive communication of risk of development of obesity with smoking of mother during pregnancy.

Conclusion In Russia of 42% of newborn children have high probability to create obesity and need prevention. From social factors the role of high material security of a family and insufficient educational level of mother is proved.

PO-0086 | CLINICAL UTILITY OF THE CONJUGATED LINOLEIC ACID AS ADYUVANT ON OVERWEIGHT AND OBESITY TREATMENT IN CHILD AND ADOLESCENT

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Background and aims Obesity as a universal public health problem requires precise measuresto limit its impact on the population. Antiobesity drugs have been used in adults andadolescents. The use of nutritional aids isnoted in the literature as a treatment option for obesity. Conjugated linoleic acid (CLA) has beenused in general population including children, causing a reduction in weight, body mass index (BMI) and waist circumference (WC) after administration for 12 to 104 weeks. The objective was to determine theusefulness of CLA added to the lifestyle intervention, reflected insomatometric parameters in a group of children and adolescents with obesity.

Methods 21 children and adolescents with overweight andobesity, used CLA during 12 weeks and then only lifestyle up to 32 weeks. They were cited every 4 weeks to measurement of weight, height, BMI, WC, waistheight index (WHI) and blood pressure.

Results All patients were monitoring 32 weeks, 14 attended 100%of the appointments. There was a continuous decrease of the WHI and BMI even afterCLA was suspended, attributing this effect to continued lifestyle intervention, despite a BMI rebound at week 16.

Conclusions The use of CLA may be useful as adjuvant during lifestyleintervention (diet and physical activity) in obese children and adolescents.

PO-0087 | WITHDRAWN