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6FLHQWLÀF FHQWHU IRU IDPLO\ KHDOWK DQG KXPDQ UHSURGXFWLRQ SUREOHPV 5XVVLDQ)HGH

Statement of the Problem: Among the causes of obesity an important role is played by the heredity. e FTO is one of the genes associated with obesity and body mass fat. And polymorphism rs9939609 of this gene located in the rst intron (the code is W=A/T) appears the most signi cant.

Methodology & eoretical Orientation: e study included total of 128 Caucasian female adolescents (average age 15.86±1.02) living in Eastern Siberia (Irkutsk region, Russia). SDS BMI, % of body mass fat was measured. 59 girls were included in group with normal weight (SDS BMI 0.84±0.55) and 69 girls were included in group with overweight and obesity (SDS BMI 2.52±0.72). Genomic DNA was extracted from EDTA-treated whole blood by commercial kits (DNA-Sorb-B, AmpliSens, Russia). Genotyping of the *FTO rs9939609* was performed using polymerase chain reaction in real time with DT-Prime cycler (DNA-technology, Russia). Statistical analysis was performed by so "STATISTICA8.0".

Findings: A-allele frequency was 40% in control group and 49% was in group with overweight and obesity (p=0.223). Comparisons of SDS BMI and percent of body mass fat strati ed by *FTO rs9939609* genotypes are shown in table 1. We found the signi cant increase of SDS BMI in carriers of A-allele in group with overweight and obesity. ere is no association in group with normal weight.

Conclusion & Signi cance: