In the analysis of individual clinical forms, a significant decrease in the frequency of the major allele (Arg/753) and an increase in the prevalence of the mutant allele (Gln/753) are established, both with sero-resistant and with latent forms of syphilis. The risk of disease development in residents of Gln/753 with early latent syphilis was 8.1 (CI: 2.23–29.4), with late latent – 7.46 (CI: 1.92–23.0), with sero-resistant it increased dozens of times – 65.8 (CI: 19.1–227.1).

Patients of all groups showed a decrease in the frequency of occurrence of the homozygous genotype by the dominant allele (Arg/Arg). Whilst, only in the group with serous-resistant syphilis a significant increase in the prevalence of the homozygous variant of the genotype by a rare allele (Gln/Gln) was determined.

The relative risk of disease development in residents of the homozygous genotype of the polymorphism TLR2 – 753Arg/Arg (rs5743708) was extremely low.

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THE PLACE OF EVALUATION VASCULAR RIGIDITY IN PROCESS OF STUDENT’S HEALTH SCREENING
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THE PLACE OF EVALUATION VASCULAR RIGIDITY IN PROCESS OF STUDENT’S HEALTH SCREENING

Cardio-ankle vascular index (CAVI) has a high prognostic significance for development of cardiovascular events. However, its values in the young population are quite vague still. In 149 students (55 boys, 94 girls) from 17 to 22 years old were assessed the vascular wall by indicators of CAVI using the device Vasera VS-1500 (Fukuda Denshi, Japan). Percentile analysis showed that the 95th percentile for boys at R-CAVI and L-CAVI was 7.1 and 7.2, and for...
the girls on these indicators is 6.8 and 7.0, respectively. The results of comprehensive analysis of values of CAVI index showed that half of boys and half girls are placed in interval from 5.0 to 5.9 units. Bearers of the specified indicator at the level above 7.0 among boys and girls identified of 10.5 % and 3.1 %, respectively. Among 55 boys individuals with high level of CAVI-R were 6 (10.9 %) people and CAVI-L – 7 (12.7 %). These young men had differed vascular age at 40–44 years. Among them met the person with the presence of traditional RF (smoking, family history) and not traditional RF (CTD). Thus our data is expedient to take into account during medical examination of students, which in recent years grow at the bases of various universities of the Russian Federation, including SisMU.

Keywords: vascular stiffness, young age

Objective: to evaluate the identification of cases of increased vascular aging among young adults in connection with various RF.

Materials and Methods. There are 149 students (55 boys, 94 girls) aged from 17 to 24 years was at the Student’s Health Center of SisMU in the framework of the prevention project «The University of Healthy Life-Style». It was assessed the condition of the vascular wall using the device Vasera VS-1500 ( «Fukuda Denshi», Япония ). Analysis showed, that 95%-per centile for young people for R-CAVI and L-CAVI equals 7.1 and 7.2, as for a young man – 6.8 and 7.0 respectively. Half of the young men and half of girls are placed in interval from 5.0 to 5.9 units. Still almost a quarter of the surveyed persons exceeded the 95th percentile in the frequency interval from 5.0 to 5.9 units. It is noteworthy that for all levels of percentile analysis of the index R-CAVI for boys and girls were lower compared to the levels of L-CAVI. Specifically, significant difference of the discussed parameter between the left and right extremities was observed in girls. But the differences did not reach the reliable level.

The results of the analysis of values of CAVI index showed that half of boys and half of girls are placed on the level of this index in the frequency interval from 5.0 to 5.9 units. Still almost a quarter of the surveyed persons of both sexes correspond to the interval from 6.0 to 6.5 units. Carriers of this indicator at the level of 7.0 among boys and girls identified 10.5 % and 3.1 % respectively, and among young men is 3.3 times more compared to girls.

Special attention should be paid to the results of the individual evaluation profile FR in individuals, whose performance CAVI exceeded 95 %. Of the 55 youths persons with CAVI level equal to it or greater than it in the CAVI-R was six (10.9 %) people and in CAVI-L was seven people (12.7 %). These young men vascular age at 40–44 years was differed. It is interesting to note that among them there were the persons with the presence of traditional and not quite traditional risk factor type of CTD or even without any FR. Among carriers of premature aging it was revealed a 21-years old man with index CAVI-R 7.7 and CAVI-L 7.9. He had such significant FR as smoking and started to smoke at the age of 11–12 years old (1–1.5 packs of cigarettes a day). But despite this the boy still stopped smoking after described vascular screening because of the strong motivational impact of the preventive project «The University of Healthy Life-Style».
of numeroussigns of CTD [1, 3] in the form of the corresponding phenotype (the number of external stigmases more than 10), the propensity to keloid scars, four pneumothoraces in his history (removed the upper lobe of the right lung) and mitral valve prolapse. Among the other five people in two casest was identified heredity, burdened by the early development of CV diseases. The other three young people had no any RF, besides increased vascular rigidity, reflecting the presence of the syndrome EVA.

Presented data confirm the idea about the feasibility of angiological screening among the active population, starting at a young age. The results indicate the presence of accelerated vascular aging every tenth-ninth representative students. Experts attribute the emergence of the EVA syndrome with modern lifestyle associated with the widespread use of fast food, smoking, physical inactivity, high stress level of loads, deteriorating environmental conditions, etc [6]. Therefore, it is advisable to intensify the implementation of the system of diagnostic screening for the timely detection of early vascular aging by the type of EVA syndrome among young adults. The same approach is shared by Chinese researchers who performed a 26-year prospective study of vascular stiffness parameters in terms of the shoulder-ankle index at 4623 school pupils aged 6–15 years living in one of the industrialized areas of China [4]. The authors also emphasize the greater propensity of the vascular wall to the accelerated aging in boys compared to girls.

**Conclusions.** Our results show that in addition to the traditional RF the constitutional hereditary characteristics of the organism may contribute to increasing of the stiffness properties of the vascular wall. This requires a differentiated approach to the interpretation of results of instrumental angiological screening in connection with the entire data set of the objective status of each subject. Only such individual approach to the interpretation of screening data will then allow to create personalized program of preventive measures directed to effective correction of the manifestations of the EVA syndrome among young people.

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**ATHLETE FOLLOWED BY HEALTHCARE PROFESSIONALS**

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**ПРОБАЕМАТИКА МЕДИЦИНСКОГО СОПРОВОЖДЕНИЯ СПОРТСМЕНОВ**

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