

distribution corresponded to the Hardy-Weinberg equilibrium ( $q=1.37$ ,  $p=0.69$ ).

When assessing the relative risk of AF development depending on the polymorphic variant of the NOS1 gene, the following results were obtained. The presence of the recessive allele A in the genotype was associated with an increased risk of AF (RR=1.92, 95% CI 1.16-3.18,  $p=0.03$ ). At the same time, the presence of the G allele in the genotype reduced the risk of AF development (RR=0.77, 95% CI 0.64-0.93,  $p=0.008$ ), as did the presence of the GG genotype (RR=0.64, 95% CI 0.43-0.95,  $p=0.01$ ).

**Conclusion.** Patients with the recessive allele A of the G84A polymorphism of the NOS1 gene have an increased risk of AF development, which can be taken into account in the differentiated therapy of patients with cardiac arrhythmias.

## SURGICAL VIEWS ON THE TREATMENT OF CHRONIC OSTEOMYELITIS

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**Introduction.** Chronic osteomyelitis currently remains a pressing problem of modern medicine and is of great social significance, since the largest group of patients is people of working age. Regardless of the achieved treatment results, infection remains quite high. Wound suppuration is associated with changes in the invasive properties of microorganisms, disruptions in the body's immune system, and the mechanical interventions themselves during the treatment of the disease.

**Aim of the study.** To improve the results of treatment of patients with chronic osteomyelitis of tubular bones, using an autograft and platelet-enriched plasma, increasing the immune status.

**Materials and methods.** The study was conducted among 89 patients with chronic osteomyelitis (HO) of long tubular bones who were on inpatient treatment at the BUZ UR GKB No. 6 of the Ministry of Health of the Russian Federation, Izhevsk. The main group included 48 (53.9%) patients who were treated with plastic surgery of the residual bone cavity (CP) with autogenous bone tissue of the perifocal region in the form of "chips" with the addition of platelet-enriched plasma and the drug Roncoleukin was administered to them to increase their immune status.

The comparison group consisted of 41 (46.1%) patients whose treatment was carried out by other methods of plastic surgery (muscle on the proximal pedicle, combined musculoskeletal, filling with an adhesive composition). The average age of the patients was  $38.9 \pm 1.9$  years and  $34.7 \pm 2.0$  years, respectively. Both groups were dominated by men. In 50.6% of all cases, the process was localized in the femur, in 40.5% – in the tibia, in 6.7% – in the humerus, in 1.1%

– in the ulna and in 1.1% – in the radius. The average duration of the disease was more than 7.5 years. In 60.7% of all patients, post-traumatic HO was observed, in 36.0% – chronic hematogenic and in 3.3% – postoperative.

The diagnosis was confirmed using clinical, radiological methods, fistulography, computed tomography, morphological, bacteriological research methods. When performing plastic surgery in patients of the main group, autogenous bone tissue in the form of "chips" was taken 0.3-0.5 mm thick with a chisel and mixed with platelet-enriched plasma before filling the CP. The residual CP was filled compactly with the remaining bone chips and thereby created conditions for revascularization of the bone graft. The operation was completed by maximum convergence of the edges of the periosteum with careful layered suturing of the wound. Immediately after the operation, an intravenous solution of 1.0 mg Roncoleukin was administered at intervals of 1-3 days, 3 injections per course.

**Results and discussion.** Positive results of treatment of this group were noted in comparison with the group, where various plastic surgery was performed: signs of inflammation were noted with significantly lower frequency, macroscopically it was established that the inner wall of the osteomyelitic cavity (ICOP) had signs of a degenerative nature, microscopy of fragments of bone tissue in the vast majority of patients of ICOP was represented by compact osteosclerosis. Autogenic bone "chips" from the perifocal region are sterile, have plastic properties, have great resistance to infection of the osteomyelitic focus and its use prevents the development of histocompatibility and invasion of blood-borne diseases. And the concentration of platelets has an osteoinductive effect. Satisfactory results were noted in 91.7% of patients, the number of relapses decreased from 24.4% to 8.2%.

**Conclusion.** An integrated approach in the surgical treatment of patients with chronic osteomyelitis is effective and significant in the application of new technologies.

## **NEURO-DYNAMIC ELECTRICAL STIMULATION (NEURODENS) IN THE COMPLEX TREATMENT OF VARICOSE VEINS OF THE LOWER EXTREMITIES**

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**Introduction.** Varicose veins of the lower extremities are one of the most common pathologies in the modern world. According to the World Health Organization, every fifth adult on the planet suffers from this disease. The annual increase in new cases of VVL in industrialized countries is 2-2.6%. Almost 38 million residents of Russia, regardless of the region, suffer from