Dear colleagues!

Oleg Yu. Atkov

Konstantin V. Zavadovsky

Here is the last issue of the Russian Journal of Cardiology in the outgoing year, dedicated to instrumental investigations in cardiology.

Currently, medical imaging is an independent, progressively developing direction, the development of which is largely determined by scientific and technological progress, in particular, the development and implementation of diagnostic devices and software products into clinical practice. At the same time, X-ray diagnostics is closely related to the main clinical specialties, primarily oncology, cardiology, and neurology. Such an alliance promotes the growth of knowledge at the intersection of relevant specialties.

Modern cardiovascular imaging methods, possessing high resolution and based on various physical principles, allow a comprehensive study of physiological and pathological processes in cardiovascular diseases.

In this issue, readers will find noteworthy systematic reviews on the use of single-photon emission computed tomography and magnetic resonance imaging for assessing microvascular dysfunction in nonobstructive coronary artery disease and myocardial fibrosis in non-ischemic cardiomyopathies, as well as for monitoring the efficacy of anticoagulation in atrial fibrillation.

We bring to your attention the analysis of a multicenter study of long-term outcomes of conventional and eversion carotid endarterectomy.

Among the original studies, noteworthy is the work on positron emission tomographic diagnosis of prosthetic valve infective endocarditis. This technology makes it possible to diagnose this pathology with high sensitivity and specificity, which is especially important in the context of an increasing number of heart valve implantations, including endovascular method.

Cardiac biomarkers, which are used in both the initial detection and assessment of the severity and prognosis of heart pathology, are of great importance in modern diagnostics. In this issue, we presented the results of evaluating biomarkers in patients with myocardial infarction after radiofrequency ablation of ventricular arrhythmias, with progression of coronary calcification, and also with endothelial dysfunction.

At the end, we would like to remind you of two events. Sixty years ago, with the launch of the first human into orbit, space functional diagnostics of human cardiovascular system began, which gave impetus to telecardiology development. And twenty years later, the Argument ultrasound system for heart assessment was created, which made it possible to obtain for the first time in the world an echocardiogram from an orbital station.

Therefore, the term “space telecadiology” has a domestic origin — made in the USSR.

We hope that this issue devoted to instrumental investigations in cardiology will be interesting and useful for not only specialists of this field, but also for practical cardiologists, and also, possibly, will inspire researchers to new works at the intersection of knowledge, methods and technologies in cardiology.

With wishes of peace, health and professional success in the New Year!

Oleg Yu. Atkov, Doctor of Medical Science, Professor, Corresponding Member of Russian Academy of Sciences
Konstantin V. Zavadovsky, Doctor of Medical Science