

The authors reported no conflicts of interest.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.



CORRECTION OF TRICUSPID REGURGITATION AND DENERVATION OF PULMONARY TRUNK AND PULMONARY



ARTERIES

To the Editor:

We thank Coutinho¹ for a detailed analysis of the surgical treatment of a large cohort of patients with concomitant tricuspid insufficiency. This publication aroused our interest, and we are pleased to familiarize ourselves with the results of the author's research.¹ This is a topical issue in modern cardiac surgery and is widespread in patients with mitral valve disease. Most patients with left heart disease have significant tricuspid regurgitation (TR) requiring surgery.

Our clinic has relatively little experience in the surgical treatment of valvular heart disease, including those complicated by atrial fibrillation (AF). In addition, in almost all patients we perform correction of concomitant TR.²

All patients with concomitant AF undergo the Cox-maze IV procedure to restore sinus rhythm. As a result of a comprehensive approach to the treatment of these patients, including the correction of the valve disease and sinus rhythm restoration, we obtain better postoperative results.³ Of 134 patients with valvular heart disease, AF was detected in 64 (47.8%), and all of them underwent the Cox-maze IV procedure. Sinus rhythm was restored in 55 (86%) patients 1 month after surgery and in 48 (74.8%) patients, it was maintained during 12 months of follow-up. In this regard, we would like to find out whether AF surgical correction was carried out in the study group and their postoperative outcomes compared with patients with isolated valve disease treatment?

Left heart valvular disease, which is most common in clinical practice, often contributes to an increase in pressure in the left atrium and, as a consequence, an increase in pressure in the pulmonary circulation, with a gradual worsening of pulmonary hypertension (PH). In turn, severe PH

contributes to overloading the right heart with the formation of the functional TR. We conducted a clinical study of the effect of complex surgical treatment in patients with valvular heart disease, AF, and severe PH (n = 202), including surgical correction of valvular disease, Cox-maze IV procedure, and denervation of the pulmonary trunk bifurcation and the orifices of bilateral pulmonary arteries (n = 51). The control group consisted of patients without pulmonary artery denervation (n = 89) and the group with isolated correction of valvular disease (n = 62). The study showed the advantage of a comprehensive surgical approach.⁴ A comprehensive approach to the surgical treatment of this category of patients made it possible to significantly reduce pulmonary pressure in 62% of patients and restore sinus rhythm in 84% of patients. Also, patients in the study group did not experience recurrence of TR in 80% of cases, whereas isolated correction of valvular heart disease helped to maintain satisfactory tricuspid valve function in 67% ($\chi^2 P < .05$). At the same time, we observed an improvement in echocardiography parameters, heart failure symptoms, and quality of life, according to the SF-36 and Minnesota Living with Heart Failure Questionnaire. How common was severe PH in the patient group that Coutinho studied? Does this author think that the use of radiofrequency denervation is a reasonable method of surgical correction of PH?

Babokin Vadim Yegorovich, MD, PhD^{a,b}

Trofimov Nikolai Alexandrovich, MD, PhD^{a,b,c}

Egorov Dmitrii Vladimirovich, BS^a

^aChuvash State University

^bThe Postgraduate Doctors' Training Institute

^cFederal Center for Traumatology, Orthopedics and

Endoprosthesis

Cheboksary, Russia

References

1. Coutinho GF. Commentary: mild tricuspid regurgitation in rheumatic mitral surgery: to do, or not do, that is the question. *J Thorac Cardiovasc Surg.* June 9, 2021 [Epub ahead of print].
2. Trofimov NA, Medvedev AP, Babokin VE, Nikolsky AV, Efimova IP, Plechev VV, et al. The effectiveness of the Cox maze-IV procedure in cardiac surgery patients with atrial fibrillation. *Kardiologiya.* 2020;60:991 [in Russian].
3. Babokin V, Trofimov N. Prevention of atrial fibrillation recurrence after the maze IV procedure. *Ann Thorac Surg.* 2020;109:1624-5.
4. Trofimov NA, Medvedev AP, Babokin VY, Efimova IP, Kichigin VA, Dragunov AG, et al. Circular sympathetic denervation of the pulmonary arteries in cardiac surgery patients with mitral valve defect, atrial fibrillation and high pulmonary hypertension. *Kardiologiya.* 2020;60:35-42 [in Russian].

<https://doi.org/10.1016/j.xjon.2021.11.002>