

## The tactics of optimal surgical treatment of heart myxomas, the experience of 818 operations

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**Introduction:** The incidence of primary cardiac tumors in cardiosurgical clinics ranges from 0.09% to 1.9% of the total number of hospitalized patients. The safety of the operation, which is associated with a high probability of fragmentation of the tumor during its removal, is an important condition for its successful implementation.

**Aim:** The aim of the study was to search the tactics of optimal and the safe surgical treatment of myxoma of the heart.

**Material & Methods:** In the N M Amosov National Institute of Cardiovascular Surgery of the Academy of Medical Sciences of Ukraine for the period from 1.01.1969 to 1.01.2018. 916 interventions were performed in heart tumors. Heart myxomas were found in 818 (89.3%) cases, of which 718 (87.8%) are myxomas of the left atrium. The age of patients with myxomas was 3 to 78 years (on average  $47.5 \pm 3.4$  years). The embolic syndrome was detected in 44 (5.4%) cases with a heart myxomas, of which 35 (4.1%) patients were in the cerebral vessels. The most traditional access through the right atrium and the interatrial septum was used in 543 (75.6%) cases with a myxomas of the left atrium, tumor fragmentation was observed in 109 (20.1%) cases. At the same time, an important stage of the operation is an adequate dissection of the interatrial septum. Analysis of the attachment of the left atrial myxoma to the interatrial septum in 124 patients showed that 66 (53.2%) had the tumor base in its middle third. In 45 (36.3%) cases the place of tumor fixation is the lower third of the interatrial septum. And only in 13 (10.5%) patients the upper third of the septum was affected. This is the safest site of introduction through the interatrial septum, and for the subsequent visualization of the tumor's foundation, which became the basis of our methodology.

**Results:** In 91 of 93 patients, the use of the new technique allowed the safe detection and isolation of the leg of the myxoma. The frequency of fragmentation of the tumor upon its removal decreased to 2.2%. The need for emergency surgery is proved, which reduces the threat of hospital preoperative mortality. Over the past 17 years, 455 operations have been performed without fatalities. Survival in the period up to 20 years was 79.7%. Relapses of myxoma were found in 16 (2.1%) patients in the period from 2 to 12 years after the initial operation.

**Conclusions:** With the most frequent localization of the myxoma in the left atrium, it is expedient to eliminate the myxoma by accessing the right atrium and the interatrial septum with an improved method of manipulation on it, with the subsequent possibility of switching to alternate atrial access to prevent fragmentation of the tumor.

### Biography

Volodymyr Isaienko was born on October 07, 1961, in the Kyiv, Ukraine. Education: higher, Kyiv Medical Institute named O.O. Bogomolets, medical faculty in 1984 Academic rank, scientific degree: associate professor (2013), PhD (2005). Total work experience - 33 years, in this institution - 17 years. Labor Path: After education in the Kiev Medical Institute named O.O. Bogomolets in 1984, worked as a surgeon in the Kyiv's clinic № 1 until 1988. From 1988 to 2001 worked in the National Institute of Cardio-Vascular surgery named N.M. Amosov of the Academy of Medical Sciences of Ukraine as doctor-surgeon. V. Isaenko has a higher qualification category in the field of "Surgery of the heart and main vessels. He defended in 2005 his Ph.D. thesis on the topic: "Surgical correction of mitral valve lesions in infectious endocarditis". Since 2001, V. Isaenko works as an assistant, since 2012 to present - Associate Professor of the Department of Cardiac and main vessels surgery at the National Medical Academy of Postgraduate Education named P.L. Shupik, existing on the base of the National Institute of Cardiovascular Surgery named N.M. Amosov AMS of Ukraine. Associate professor received his academic title in 2013. V. Isaenko is the author of more than 125 scientific articles on various aspects of cardiac surgery, has 12 author's certificates for inventions. V. Isaenko is the member of the Association of Cardiovascular Surgeons of Ukraine.