

### 39. IMPLEMENTING THE MINIMALLY INVASIVE APPROACH IN CARDIAC SURGERY

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**Introduction.** Minimally invasive cardiac surgery has been gaining value in the Republic of Moldova since 2001, already occupying an exceptional place in both medical and teaching practice. It is an important alternative in the treatment of congenital and acquired cardiac surgical pathologies that have a morbid incidence in continuous growth.

**Aim of study.** Evaluation of the experience of the Cardiovascular Surgery Clinic, in approaching the minimally invasive cardiac surgery treatment in terms of the possibilities and data of the contemporary literature.

**Methods and materials.** The analysis includes 12 clinical cases, from the Cardiovascular Surgery Clinic, aged between 2 months and 75 years (average 25.7 years), in the period 2001-2022, female sex 9 patients, male sex 3 patients, with body weight 12 kg and 70kg (average 41 kg), analyzing the clinical appearance, diagnosis, intra-operative specificity and post-operative outcome.

**Results.** Patients who underwent cardiac surgery with a minimally invasive approach had different diagnoses, requiring different surgical tactics, but in all 12 cases, using the approach by antero-lateral thoracotomy of the IV intercostal space, on the right. In 6 cases it was performed. suturing the defect of the interatrial septum, in 2 cases it was performed the plasty of the defect of the interatrial septum, with autologous pericardial patch. A singular case is attested where: augmentation of the anterior cusp of the tricuspid valve with autologous pericardial patch and implantation of the Medtronic Contour 3D ring diameter 36; right atriotomy with excision of the aneurysm from which a patch was later used to close the defect of the interatrial septum; mitral valve prosthesis with mechanical valve SJM-29, excision of the myxoma (dimensions 21x11cm) in the region of the left atrium. The postoperative result is favourable, with stopping sedation after 8 hours-14.5 hours (average 9.8 hours) post-operative, easy physical recovery, with being in the profile section 3-5 days (average 3.8 days), post-operative with positive dynamics.

**Conclusion.** The minimally invasive approach and surgical tactics allow cardiac surgeons to use an advanced technique with specific state-of-the-art instruments, video systems, involving a 3-5 cm incision, in the right intercostal space IV or mini-sternotomy, frequently used in the surgical treatment of congenital heart disease, compared to sternotomy. This type of intervention has a much lower negative impact on the patient, by reducing bleeding and infection. The main visual advantage is reduced sedation period and reduced hospitalisation days with rapid postoperative recovery.