

19. MINIMALLY INVASIVE REPAIR TECHNIQUES IN BARLOW'S MITRAL VALVE DISEASE.



Author: Stratan Veronica

Scientific advisor: Ciubotaru Anatol, MD, PhD, Professor, Head of Cardiovascular Surgery Course, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction. Barlow's disease is a challenge for minimally invasive cardiac surgery which represents a clinical form of mitral valve insufficiency characterized by dilation of the mitral valve annulus, valve prolapse and excessive myxomatous tissue.

Aim of study. Analysis the scientific bibliographic sources of the speciality literature with reference to the evaluation of the success and durability of the intraoperative results and postoperative survival after minimally invasive cardiac surgery in Barlow's mitral valve disease.

Methods and materials. Multilateral and complex study by analyzing the speciality literature in the data bases: PubMed, Ovid MEDLINE, Google Scholar according to the following search terms: Barlow, minimally invasive cardiac surgery, prolapse, mitral valve insufficiency. Have been selected relevant studies in English from 2018 to the present.

Results. The literature analysis allowed the identification of 112 publications noting an increase in interest towards this topic. Echocardiography was the essential examination in establishing indications for surgical treatment. Various complex surgical techniques were analyzed: Carpentier's slip plasty, edge-to-edge (Alfieri) techniques, neochord (Loop) techniques, chordal transfer or shortening, leaflet flip techniques, and "non-sectional" annuloplasty approaches. Regardless of the surgical technique applied in Barlow's disease the minimally invasive approach ensures intraoperative time, extracorporeal circulation and the aortic clamp. The decrease in postoperative complications was established: hemorrhage, vascular accidents, infections and the rate of surgical reintervention.

Conclusion. Minimally invasive surgeries in Barlow's disease are performed safely with excellent long-term results and confirmed valvular performance echocardiographic remains stable over time. The results of the surgical techniques can be comparable but remain superior to the conventional cardiac surgical treatment, so surgeons practicing the minimally invasive cardiac surgical approach can use any technique based on their own experience.

Keywords. Barlow, minimally invasive cardiac surgery.