Should we operate all degenerative mitral valves through sternotomy or via minithoracotomy? A personalized approach.

A. COTRONEO1, G. MARTINELLI1, M. HAKIM POUR1, M. BOBIO1, L. ZAMFIR2, E. STELIAN3, M. DIENA1.1
Cardiac Surgery, CARDIOTEAM FOUNDATION, San Gaudenzio Clinic, Novara, Italy, 2Cardiology Department, CARDIOTEAM FOUNDATION, San Gaudenzio Clinic, Novara, Italy

OBJECTIVE: Actually mitral valve surgery is approached via sternotomy or minithoracotomy according to surgeon or institution preference. Some centers prefer for all patient the standard sternotomy while others adopt routinely the right minithoracotomy. We hereby present an individualized approach according to some patient features.

METHODS: From January 2009 to September 2016 we operated 410 patients with degenerative mitral disease (304 minithoracotomy and 106 full sternotomy). Indication for the miniaccess was degenerative mitral valve disease including those with tricuspid regurgitation. Indication for sternotomy were: age older than 75 years, concomitant ablation for atrial fibrillation and extensive annular calcification.

RESULTS: Hospital mortality was 0.3% in the first group and 1.4% in the latter. Mitral valve repair was accomplished in 99% of the miniaccess group and 96% in the sternotomy group. At follow-up recurrency for mitral regurgitation more than mild was 1.8% per patient per year. A successful stable sinus rythm for atrial fibrillation patients was present in 72% at two years.

CONCLUSIONS: In our experience to obtain an optimal treatment for patients with mitral valve degenerative disease a personalized approach is preferable. We chose sternotomy for older patients or those with a calcified annulus and to treat atrial fibrillation completely and not only the box lesion. We prefer minithoracotomy for all other degenerative mitral valves including complex cases with both leaflets prolapse as in Barlow disease.