PROPHYLACTIC TRICUSPID REPAIR IN PATIENTS WITH DILATED TRICUSPID ANNULUS UNDERGOING MITRAL VALVE SURGERY: A META-ANALYSIS REVIEW

Walid Ben Ali, MD, Ismail Bouhout MD, Philippe Demers, MD, Thierry Ducruet, MS, Michel Pellerin, MD, Denis Bouchard, MD, PhD
Montréal Heart Institute. Canada

INTRODUCTION
• Functional tricuspid regurgitation’s prevalence in patients undergoing operations for left sided heart valve disease ranges between 25% and 30%.
• Treatment of the mitral lesion alone only decreases the after load. It does not correct tricuspid annular dilatation.
• Since there are no large prospective randomized trials studying early and long-term outcomes of tricuspid repair in case of tricuspid annular dilation concomitant to mitral valve surgery, a meta-analysis is the only tool to evaluate the accumulated evidence.

METHODS:
• Tricuspid annular dilation was defined as: 1) Tricuspid diastolic diameter > 40 mm measured on A3-P3 plan on trans-thoracic echocardiography (TTE), 2) Tricuspid systolic diameter > 24 mm measured on A3-P3 plan on TTE, and 3) Tricuspid diameter > 70 mm by gross measurement on arrested heart.
• The main outcomes of interest were significant tricuspid regurgitation (TR 2+ or more on last follow-up) and change in TR grade.
• Secondary outcomes of interest were change in tricuspid annulus diameter, right ventricle short axis and long axis dimensions, systolic pulmonary artery pressure and New York Heart Association class.

RESULTS:

CONCLUSION:
Prophylactic tricuspid annuloplasty to mitral valve surgery in case of tricuspid annular dilation almost:
• eliminates residual and recurrent tricuspid valve regurgitation
• leads to improvement in right ventricle geometry and function and in functional status.

REFERENCES:

LIMITATIONS OF STUDY:
• The main limitation of the study is the lack of randomized trials.
• The endpoints for this study are longitudinal in nature, and the analysis is based on the last value of TR and annular dimension.