Abstract number: Lond19A-POS040
Abstract type: Poster
Reference: This abstract was presented at PCR London Valves 2019, 17-19 November 2019, London
Link: https://abstractbook.pcronline.com/export/pdf/id/150067
Published on: 25 October 2019

Severe, massive, and torrential tricuspid regurgitation: incidence, current management and outcomes

APARISI SANZ (1), HINOJOSA CAMARGO W. (1), CATALÁ RUIZ P. (1), SERRADOR FRUTOS A. M. (1), RODRIGUEZ GABELLA T. (1), ARNOLD R. J. (1), REVILLA ORODEA A. (1), GUTIÉRREZ GARCÍA H. (1), SAN ROMÁN CALVAR J. A. (1), AMAT SANTOS I. J. (1)
(1) Hospital Clínico Universitario de Valladolid, Valladolid SPAIN

THEME: Interventions for Valvular Disease
TOPIC(S): Tricuspid / Pulmonary valve

AIMS
The management of tricuspid regurgitation is challenging and the current surgical options are limited due to the high operative risk and the variable results. However, it is well known that tricuspid regurgitation conditions a poor prognosis at long-term. Recent percutaneous alternatives, including the edge-to-edge approach, have emerged in our clinical practice whereas several newer devices present promising initial results in this scenario.

METHODS AND RESULTS
We aimed to describe the incidence of tricuspid regurgitation ≥2+, the current management in our context with the new available options, and the outcomes. Consecutive transthoracic echocardiographic exams (TTE) performed in our echocardiography laboratory between January/2018 and June/2018 were revised by two cardiologists experts in cardiac imaging. All patients with tricuspid regurgitation ≥2+ were selected and further classified according to the new grading encompassing two more grades, namely "massive" and "torrential". Afterwards, baseline clinical characteristics and functional status were retrospectively collected from clinical records and follow-up obtained for at least 6 months in all cases. Management of the patients was available in all cases.A total of 97 patients (2.7%) presented tricuspid regurgitation ≥2+ across 3620 consecutive patients who underwent TTE. Of them, tricuspid regurgitation was severe in 41.7%, massive in 17.7%, and torrential in 2.1%. The mean age was 75.9±11.2 years and 65% were women. The rate of chronic kidney disease was 15.6%, previous stroke 19.8%, diabetes mellitus 24% and prior atrial fibrillation 76%. The echocardiography determined a mean size of the tricuspid annulus (4-chamber view) of 48,29± 9,24 mm with an estimated TAPSE of 16,9±4,2 mm. Mean systolic pulmonary artery was 53,6±14 mmHg and mean left ventricular ejection fraction was 54,2±13,3%. Globally, 23.1% were classified as "primary" and 70.2% as "secondary" TR, with 3 cases of endocarditis sequelae, 3 congenital (2 atrial septal defect and 1 Ebstein), 2 prior extraction of pacemaker leads, 4 failing tricuspid rings, 33 post-mitral surgery, 10 post pulmonary disease (7 respiratory disease and 3 pulmonary embolism), and 18 with rheumatic affection. Mean follow-up tine was 323.9 ± 101.4 days in which 37.1% of the patients required hospital admissions mainly due to heart failure (58.3%) and 13.5% died. In 5 patients (5.1%) tricuspid regurgitation was intervened by surgical annuloplasty (60%) or percutaneous repair (40%), without any intra-procedural death or at 6 months of follow-up.

CONCLUSIONS
The presence of tricuspid regurgitation ≥2+ is relatively uncommon (<3%) in unselected patients undergoing TTE. The aetiology of tricuspid regurgitation is highly variable but in more than 3/4 it is secondary, mainly to prior left-sided valve surgery. Nevertheless, despite the good results only â‰ˆ5% underwent either surgical or percutaneous repair in our institution. This suggests that both options present a potential growth in the coming years. Further prospective research is

warranted.