shows the significant differences among the 3 groups. We included the following parameters into a predictive score to differentiate HCM from other forms of LVH: QRS width (>88ms = 1 point), P-wave integral (>688µVs = 1 point) and septum thickness (>12mm = 2 points). A score >2 (Youden index 0.626) correctly classified HCM in 81% of the cases with a sensitivity and specificity of 82% an 81%, respectively.

Conclusion: Differentiation of HCM from other forms of LVH is improved by including atrial parameters. A simple scoring system including septum thickness, QRS width and P wave integral allowed identification of patients with HCM with a sensitivity and specificity of >80%. This score needs to be validated prospectively.

Disclosure: Nothing to disclose

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Vessel fractional flow reserve in heart transplant recipients with and without graft vasculopathy

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Introduction: To assess the usefulness of vessel fractional flow reserve (vFFR) derived from coronary angiography to detect cardiac allograft vasculopathy (CAV) in heart transplant recipients.

Methods: This retrospective study was performed in patients who underwent heart transplant between January 1987 and December 2018. In heart transplant patients referred for annual check-up, undergoing surveillance coronary angiography, the extent of CAV was graded according to the criteria proposed by the International society of heart and lung transplantation (ISHLT). In those patients, three-dimensional coronary geometries were constructed from the latest coronary angiography and pressure losses were calculated using CASS vFFR. vFFR values were obtained for each major native coronary vessel. The most distal value was used for the analysis and vFFR values ≤ 0.80 were considered as significant disease.For the patient-level analysis, the lowest vFFR value of the 3 major epicardial vessels was selected.

Results: In 65 heart transplant patients with a mean age of 53.7 ± 10.1 years, 8.5 years [IQR 1.90, 15.2] years post heart transplantation, a total number of 173 vessels (59 LAD, 61 LCX, 53 RCA) were analysed. Most donors (76.9%) and recipients (67.7%) were male. Mean donor and recipient age were 35.7 and 53.7 years, respectively. The most frequent indication for heart transplant was ischemic cardiomyopathy. Mean vFFR was 0.84 ± 0.15, median 0.88 [IQR 0.79, 0.94]. A vFFR ≤ 0.80 was present in 24 patients (48 vessels). Heart transplant patientswith previous history of ischemic cardiomyopathy (ICMP) had lower vFFR as compared to those with non-ICMP (0.70 ± 0.22 vs. 0.79 ± 0.13, p = 0.06). When categorizing functional vessel characteristics by CAV classification a significant lower vFFR (p = 0.009) and a higher percent diameter stenosis (p <0.001) was observed in patientswith higher CAV grade. Use of vFFR reclassified 31.9% of patients compared to the anatomical ISHLT criteria. Despite a CAV score of 0, a pathological vFFR ≤ 0.80 was detected in 8 patients (34.8 %).

Conclusion: The impairment of coronary flow assessed by vFFR in a subgroup of patients without CAV according to standard ISHLT criteria, suggests the presence of a diffuse vasculopathy undetectable by conventional coronary angiography. Therefore, we speculate that vFFR may be a helpful tool in risk stratification post heart transplant.

Disclosure: Nothing to disclose

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A simple technique for artificial chordae loops in video assisted mitral valve repair. Is it reproducible in routine surgery? A single surgeon 12-year experience

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Background: Traditional resectional techniques and chordal transfer are somehow surpassed and difficult to apply in video-assisted mitral valve repair.

Using artificial chords appears easier in this setting. We have developed a simple technique for preparing loops with goretex sutures in adequate length and using them in video-assisted mitral valve repair since 12 years. The purpose of this study was to review the effectiveness and reproducibility of neochordal repair as a routine approach in this setting and assess the stability of these loops over the time.

Methods: This is a retrospective review of all patients who underwent elective video-assisted mitral valve repair from February 2008 to September 2019. The primary endpoints were recurrent mitral regurgitation and reoperation.

Results: 743 consecutive patients were included during the study period, with a mean age of 56±24 years. Custom made neochordal loops were used in all patients, and in association with leaflet resection in 47 patients. Eight patients were not repairable and underwent valve replacement (repair rate 99%). 22 patients had a mild grade (2.95%) regurgitation, while the remainder had only trivial. Patients were fast-tracked, with 25% extubated in the operating room and the remainder within 6 hours except 35 patients extubated after 10 hours. There were 5 deaths within 30 days (0.7%). Follow-up ranged from 3-132 months, during which all of the patients but 12 (12/708 pts:1.7%) remained with none or trace of mitral regurgitation. Twenty patients required re-operation: we had 3 ring partial posterior desinsertion which have been re-repaired through video-assisted approach with very good result, two patients presented rupture of the neochordal attachment on the free edge of the cusp and get re-repaired and 5 patients required mitral valve replacement between 3-7 years after the first operation and 10 patients required re-operation for other cardiac causes.

Conclusions: Video-assisted mitral valve repair using neochords loops provided a high rate of repair, reproducible results in a routine cardiac surgery setting, and stable repair during follow-up. This has become our preferred technique for mitral valve surgery.

Disclosure: Proctor for Covidien

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Type A aortic dissection mainly occurs in small aneurysms: is it time to review the guidelines on surgical treatment of ascending aorta aneurysm?

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Introduction: Current guidelines recommend prophylactic replacement of the ascending aorta at an aneurysm diameter of >55mm to prevent acute type A aortic dissection (TAAD) (class I, level C), in non-Marfan patients. This recommendation is based on a single study of a heterogeneous cohort of only 54 patients published in 1997. Several publications have recently questioned the threshold of 55mm, suggesting that surgery should be performed in smaller aneurysms to prevent this devastating disease. We reviewed our experience to clarifying the role of aortic size in the development of TAAD.

Methods: Single centre, retrospective analysis including all patients admitted to our emergency department from 1st January 2014 to 31st October 2019 for TAAD and received at least the replacement of the ascending aorta. Patients with Marfan syndrome or others major collagene diseases were excluded from the study. The diameter of the dissected aorta was measured on pre operatory CTscan with contrast medium at the level of the pulmonary bifurcation. We estimated the aortic diameter at the time of dissection being 20% smaller than the measured dissected aorta.

Results: 117 patients underwent surgical replacement of the ascending aorta. 15 patients were excluded from the study: 8 were Marfan patients and in 7 the CT scan could not be found because done in other hospitals. Data on 102 patients were analysed: 67 were male (60%) and 35 female (40 %), mean age was 65+/-13 years old. 66 % were treated for hypertension. The mean height was 173 +/-23 cm, for a mean weight of 80+/-27 kg. Mean diameter of the dissected aorta after the 20% correction was 39.7mm (range 31.2mm-59.2mm). In men the mean diameter was 39.6 mm whilst in female was 39.9 mm (p = 0.1). 30 days mortality rate was 19.6% (20/102).

Discussion: Type A aortic dissection occurred at an aortic diameter of <40mm in 90% of our patients without Marfan syndrome. No significant difference in aortic diameters with respect to sex. The current aortic diameter threshold of 55mm excludes approximately 95% of patients with

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