This is further supported by preliminary results of the currently ongoing long-term MDCT analysis at 12-months.

CONCLUSION This trial aims to determine if DuraGraft, a VGD/F inhibitor has the potential to reduce the occurrence of wall thickness/intima hyperplasia (early marker of VGF) and graft stenosis/occlusion (late marker) in CABG patients. While short term data appear to be promising, its long term effect on the prevention of VGD/F is to be proven.

CATEGORIES CORONARY: Cardiac Surgery

TCT-285

How appropriate is coronary artery bypass graft implantation based on Fractional Flow Reserve lesions assessment?

Ayoub El Hammiri,[1] Alexis Matteau,[2] Brian Potter,[3] Francois Gobeil,[3] Nicolas Noiseux,[4] Louis-Mathieux Stevens,[5] Samer Mansour[6]
[1]Centre Hospitalier de l'Université de Montreal, Montreal, Quebec, Canada; [2]Centre hospitalier de l'université de Montréal, Montreal, Quebec, Canada; [3]CHUM, Montreal, Quebec, Canada; [4]Montreal Heart Institute, Montreal, Quebec, Canada; [5]Departement de Chirurgie Cardiaque, Centre hospitalier de l'Université de Montréal, Montreal, Quebec, Canada; [6]Centre Hospitalier de l'Université de Montréal (CHUM), Montréal, Quebec, Canada

BACKGROUND Fraction Flow Reserve (FFR) is currently validated as an important tool in the hemodynamic evaluation of coronary stenosis allowing more accurate identification of significant lesions and resulting in better outcomes. Some studies reported that Coronary Artery Bypass Graft (CABG) on negative FFR arteries might result in early graft failure. The interpretation of hemodynamic and/or angiographical data on lesions may be differently analyzed by interventional cardiologists and cardiac surgeons. Therefore we aim to evaluate the appropriateness of CABG implantation by cardiac surgeons based on FFR evaluation of coronary lesions.

METHODS All patients having FFR evaluation of coronary lesion referred for CABG were screened over one year in an academic Canadian tertiary center. Coronary lesions assessed by FFR were classified in two groups: Appropriate CABG or Inappropriate CABG. Inappropriateness was defined as negative FFR resulting in CABG or positive FFR without CABG.

RESULTS FFR assessment was performed on 108 stenosis in 83 patients referred for CABG surgery. The mean age was 65 ±10 years. Patients were males in 74%, hypertensive 70% and diabetics in 44%. The clinical presentation was Non ST-Elevation Myocardial Infarction in 31% and stable angina in 34% of cases. Total number of CABG 78 (72%) and Inappropriate CABG was recorded in 16%. The inappropriate CABG was more frequent on lesions with negative FFR as compared to lesion with positive FFR (50% vs. 4% respectively; $p < 0,0001$). Lesions with inappropriate CABG and negative FFR had a trend to be more severe as compared to ungrafted lesions (52% vs 47% respectively; $p=0,08$).

CONCLUSION To our knowledge this is the first report addressing the integration of FFR results by cardiac surgeons in patients referred for CABG surgery. Inappropriate CABG occurred mainly in patients with negative FFR. The impact on adverse clinical events needs to be assessed in large clinical trials.

CATEGORIES IMAGING: FFR and Physiologic Lesion Assessment

TCT-286

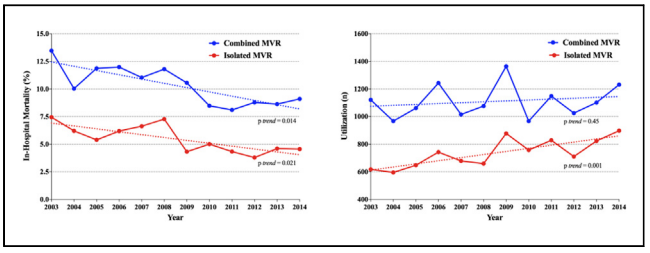
Contemporary Outcomes of Isolated Bioprothestic Mitral Valve Replacement: A Benchmark for Transcatheter Mitral Valve Replacement

Fahad Alqahtani,[1] Sami Aljohani,[2] Tatiana Busu,[2] Ahmad Almustafa,[2] Akram Kawsara,[2] Mohamad Alkhouli[2]
[1]West Virginia University Heart and Vascular institute, Morgatnown, West Virginia, United States; [2]West Virginia University Heart and Vascular Institute, Morgantown, West Virginia, United States

BACKGROUND There are 30 dedicated transcatheter mitral valve replacement (TMVR) systems in development, with a handful that reached early feasibility studies in humans. Contemporary outcomes of isolated bioprosthetic mitral valve replacement (MVR) surgery can be used as a benchmark for TMVR until randomized trials in the field are completed. However, these data are lacking.

METHODS We utilized the nationwide inpatient sample to examine recent trends and outcomes of surgical bioprosthetic MVR (isolated and combined) in the US. Patients with a diagnosis of infective endocarditis were excluded.

RESULTS 22,161 patients who had bioprosthetic MVR between 2003-2014 were included, representing a national estimate of 119,415 patients. Of whom 40% had isolated MVR and 60% had concomitant cardiac surgery. In-hospital mortality was 10.3% in the combined MVR group and 5.4% in the isolated MVR group. However, in-hospital mortality improved significantly in both groups over the study period (Figure-1). Major perioperative morbidities, length of stay and hospital charged were all higher in the combined MVR group (Table-1).



	Combined (n= 13319)	Isolated (n= 8842)	P value
Age- mean (SD), y	71 (10)	68 (13)	<0.0001
Female - no (%)	7051 (52.9)	5277 (59.7)	<0.0001
In-Hospital Death	1378 (10.3)	475 (5.4)	<0.0001
Vascular Complications	620 (4.7)	326 (3.7)	<0.0001
Permanent Pacemaker Implantation	1978 (14.9)	996 (11.3)	<0.0001
Clinical Stroke	154 (1.2)	91 (1)	0.376
Discharged SNF[1]/NH [2]/IC[3]	4869 (36.6)	2406 (27.2)	<0.0001
Length of Stay- mean (SD), d	16 (14)	13 (12)	<0.0001
Total Charges- mean (SD), $	239098 (197071)	189210 (155740)	<0.0001

CONCLUSION Outcomes of MVR have significantly improved over the last decade. These data are useful as benchmarks for the evolving TMVR therapies.

CATEGORIES STRUCTURAL: Valvular Disease: Mitral

TCT-287

Comparison of Multivessel Percutaneous Coronary Intervention with Coronary Artery Bypass Graft Surgery for Patients with Severe Coronary Artery Disease Presenting with Non-ST-segment Elevation Acute Coronary Syndromes

Piotr Desperak,[1] Michal Hawranek,[2] Pawel Gasior,[3] Aneta Ciślak,[1] Marek Gierlotka,[4] Lukasz Pyka,[1] Andrzej Lekston,[2] Mariusz Gasior[1]
[1]3rd Department of Cardiology, School of Medicine with the Division of Dentistry in Zabrze, Medical University of Silesia, Katowice, Poland, Zabrze, Poland; [2]3rd Department of Cardiology, School of Medicine with the Division of Dentistry in Zabrze, Medical University of Silesia, Katowice, Poland; [3]CRF Skirball Center for Innovation, Orangeburg, New York, United States; [4]3rd Department of Cardiology, School of Medicine with the Division of Dentistry in Zabrze, Medical University of Silesia, Zabrze, Poland

BACKGROUND There is a lack of clinical trials comparing Multivessel Percutaneous Coronary Intervention (MV PCI) with Coronary Artery Bypass Grafting (CABG) in patients presenting non-ST-segment elevation acute coronary syndromes (NSTE-ACS). We sought to compare long-term outcomes of MV PCI with CABG in patients with advanced coronary artery disease and NSTE-ACS.

METHODS A total of 3,166 consecutive patients with NSTE-ACS from ongoing, prospective registry, hospitalized in 2006-2014 were analyzed. For further analysis patients with left main, proximal left