Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
ticagrelor monotherapy after 1-month dual-antiplatelet therapy (DAPT) with the reference arm (12-month aspirin monotherapy after 12-month DAPT) after percutaneous coronary intervention. Patient-oriented composite end points (POCE: all-cause mortality, myocardial infarction, stroke, and repeat revascularization) and its components were assessed stratified by PPI use as a time-dependent covariate in patients in the experimental and reference antiplatelet arms.

RESULTS Among 15,839 patients, 2,115 (13.5%) had experienced POCE at 2 years. In the reference arm, the use of PPIs was independently associated with POCE (HR: 1.27; 95% CI: 1.12-1.44) and its individual components, whereas it was not in the experimental arm (HR: 1.04; 95% CI: 0.92-1.19; P interaction = 0.035). During the second-year follow-up, patients taking aspirin with PPIs had a significantly higher risk of POCE compared with those on aspirin without PPIs (HR: 1.57; 95% CI: 1.27-1.94), whereas the risk did not differ significantly regardless of PPI in the ticagrelor monotherapy group (HR: 1.03; 95% CI: 0.83-1.28; P interaction = 0.008).

CONCLUSION In contrast to conventional antiplatelet strategy, there was no evidence suggesting interaction between ticagrelor monotherapy and PPIs on increased cardiovascular events, which should be confirmed in further studies.

CATEGORIES CORONARY: Pharmacology/Pharmacotherapy

TCT-202 Safety and Efficacy of Low-Dose Direct Oral Anticoagulants for Atherosclerotic Cardiovascular Disease: A Meta-analysis of Randomized Controlled Trials Aakash Garg,1 Serdar Farhan,2 Amit Rout,3 George Dangas4 1Mount Sinai Hospital, New York, New York, USA; 2Icahn School of Medicine at Mount Sinai, New York, New York, USA; 3University of Louisville, Louisville, Kentucky, USA; 4Mount Sinai Medical Center, New York, New York, USA

BACKGROUND Antiplatelet therapy has been the mainstay for secondary prevention in patients with atherosclerotic cardiovascular disease (ASCVD). Recent evidence has suggested a role for low-dose direct oral anticoagulants (DOACs) in patients with stable atherosclerosis. We aimed to determine the cumulative evidence for safety and efficacy of low-dose DOACs in ASCVD.

METHODS We performed a systematic search for randomized trials comparing low-dose DOACs versus control in patients with ASCVD. End-points of interest were major adverse cardiovascular events (MACE), all-cause death, cardiovascular (CV) death, myocardial infarction (MI), and major bleeding (MB). Random-effect meta-analyses were done to calculate pooled risk ratios (RRs).

RESULTS Seven RCTs comprising 41,672 patients were included in the present study. Patients treated with low-dose DOACs had lower risk of MACE (RR: 0.84; 95% CI: 0.77-0.91) but increased risk of MB (1.80; 1.36-2.38) compared with control. Risks of MI (0.91; 0.81-1.00) and stroke (0.71; 0.56-0.89) were significantly lower in the DOAC group compared with control. There were no significant differences in all-cause or CV death in all-comers. However, in an analysis restricted to patients with coronary artery disease, low-dose DOAC was associated with significantly lower risk of mortality (0.77; 0.63-0.94).

CONCLUSION Among patients with established ASCVD, low-dose DOAC is associated with decreased risk of CV events and increased bleeding. Further research is needed to identify patient subgroups that would have most clinical benefit from addition of anticoagulation to their antithrombotic regimen.

CATEGORIES CORONARY: Pharmacology/Pharmacotherapy

TCT-203 Abstract Withdrawn

TCT-204 Consequences of Covid-19 Policy on Myocardial Infarction Reperfusion Therapy and Prognosis in a High-Volume PCI Center in Chile Pabla Cataldo,1 Fernando Verdugo,1 Christian Dauvergne,1 Manuel Mendez,1 Fernando Pineda,1 Polentzi Uriarte,1 Jorge Sandoval1 1Instituto Nacional del Tórax, Santiago, Chile; 2Hospital Militar de Santiago, Santiago, Chile

BACKGROUND Acute myocardial infarction (AMI) represents a major cause of mortality and morbidity in adult population. Owing to the response to coronavirus disease (Covid-19), health care systems worldwide have undergone significant strains, affecting the prompt diagnosis and treatment of AMI. The objective of this study was characterize the clinical profile, treatment, and outcome of patients with AMI during the Covid-19 pandemic, and compare them with a historical cohort.

METHODS This was a case-control study of AMI patients transferred to a high-volume percutaneous coronary intervention (PCI) hospital
from March 3 to July 15, 2020 (n = 96) and a historical cohort of patients transferred in the same period in 2019 (n = 269).

RESULTS Differing baseline clinical characteristics between eras included age (63 ± 12 vs 68 ± 12 years; P < 0.01), hypertension (65.6% vs 45.1%; P < 0.01), smoking (39.6% vs 25.1%; P < 0.01), ST-segment elevation AMI consultation 12 hours from symptom onset (44.4% vs 0%; P < 0.01), median door-to-device time (4 vs 3 hours; P < 0.01), primary PCI (97% vs 71%; P < 0.01), cardiogenic shock (19.8% vs 4.1%; P < 0.01), and mechanical complication (10.4% vs 1.7%; P < 0.01). We observed an increase in 30-day overall mortality (19.8% vs 1.4% P < 0.01) and cardiovascular mortality (12.5% vs 1.4%; P < 0.01). In the 2020 period, 40% of patients had positive Covid-19 status, which was a predictor for 30-day overall mortality (RR: 2.90; 95% CI: 1.14-7.36).

CONCLUSION We observed a 67.4% reduction in AMI patient referrals during the pandemic. AMI patients exhibited delays in consultation and treatment, higher morbidity, and increased mortality. Covid-19 positivity was associated with worse 30-day overall survival.

CATEGORIES CORONARY: Acute Coronary Syndromes

TCT-205
Real-World Experience With the Cusp-Overlap Deployment Technique in Transcatheter Aortic Valve Replacement for Self-Expandable Valves

Oliver Maier, kerstin Piayda, Stephan Binneboessel, Nora Berisha, Christian Jung, Tobias Zeu, Verena Veulemans

1University Hospital Dusseldorf, Dusseldorf, Germany; 2CVC, Frankfurt, Germany; 3Uniklinik Dusseldorf, Dusseldorf, Germany; 4Clinic of Cardiology, Dusseldorf, Germany; 5Heinrich-Heine University Dusseldorf, Dusseldorf, Germany

BACKGROUND The implantation depth (ID) is a critical condition for optimal hemodynamic and clinical outcomes in transcatheter aortic valve replacement (TAVR). The recently recommended cusp-overlap technique (COT) offers optimized fluoroscopic projections facilitating a precise ID. This single-center observational study aimed to investigate short-term clinical performance, safety, and efficacy outcomes in patients undergoing TAVR with self-expandable prostheses and application of COT.

METHODS From September 2020 to February 2021, a total of 127 patients underwent TAVR with self-expandable devices and application of COT. The final ID and 30-day outcomes were compared with a control cohort of 589 patients who underwent TAVR from January 2016 to August 2020 with a conventional 3-cusp cuspolar view approach.

RESULTS Mean ID was significantly reduced in the COT cohort (3.9 ± 2.7 vs 4.9 ± 2.6 mm; P < 0.001) with improvement of ID symmetry of less than 2 mm difference below the annular plane (35.4% vs 51.4%; P < 0.05). The rate of new permanent pacemaker implantations following TAVR was effectively reduced (9.8% vs 18.1%; P < 0.05). Although the fluoroscopy time did not change considerably, the dose-area product obviously increased in COT group (4,919 ± 3,714 Gy cm²; P < 0.001). Patients implanted with COT had a shorter length of in-hospital stay (7.7 ± 5.1 vs 10.2 ± 6.4 days; P < 0.001).

CONCLUSION TAVR with the use of COT is associated with an optimized ID, leading to less permanent conduction disturbances. However, our in-depth analysis showed that the increase of radiation dose is highly significant owing to extreme angulations of the gantry to obtain the cusp-overlap view.

CATEGORIES STRUCTURAL: Valvular Disease: Aortic

TCT-206
The Prevalence of Risk Factors and Pattern of Obstructive Coronary Artery Disease in Young Indians (< 45 Years)

Undergoing Percutaneous Coronary Intervention: A Sex-Based Multicenter Study

Pankaj Jariwala, Kartik Jadhav

Yashoda Hospitals, Hyderabad, Andhra Pradesh, India

BACKGROUND In a retrospective study, we aimed to explore the prevalence of risk factors and trends of obstructive coronary artery disease (CAD) in Indian women less than 45 years old compared with men of the same age who underwent percutaneous coronary intervention (PCI).

METHODS This was a retrospective, observational, multicenter study of young (<45 years) Indian women and men who underwent PCI according to the guidelines at 3 high-volume centers of India. The study evaluated the prevalence of risk factors and clinical and angiographic patterns of obstructive CAD in young Indian women compared with men.

RESULTS In a cohort of 3,656 patients who underwent PCI, 113 young women constituted 3.1% of those with obstructive CAD and 254 young men constituted 6.9%. Traditional risk factors such as hypertension, diabetes, and family history of premature CAD were the most common in both sexes, whereas dyslipidemia, obesity, smoking, and alcoholism were more common in young men. There were few cases of associated medical predisposing conditions such as postpartum spontaneous coronary artery dissection, collagen vascular diseases, rheumatic valvular heart diseases, Takayasu arteritis, and chronic alcoholism. Among the cases classified as a single-vessel disease, the left anterior descending coronary artery (LAD) was the most commonly involved, followed by the right coronary artery (RCA) and then the left circumflex coronary artery (LCX). About 2.7% of the young people had isolated left main coronary artery disease as a single-vessel condition. The diagonal artery was the least affected coronary vessel. The most common double-vessel disease was LAD and RCA involvement, followed by LAD and LCX involvement. Acute coronary syndrome was the most common clinical presentation (Table). Single-vessel disease was common with the involvement of the LAD as the most common angioticographic feature. The prevalence of cardiogenic shock was 4.4% in women and 4.1% in men although the in-hospital mortality rate was 1.77% in the women and 2% in the men.

CATEGORIES OTHER: Women's Health Issues

TCT-207
First Experience With the Novel Solution SLR Sirolimus-Eluting Balloon in All-Comer Patients Presenting With Acute and Chronic Coronary Artery Disease

Giacomo Maria Ciofi, Mehdi Madanchi, Adrian Attinger-Toller, Thomas Seiler, Luca Vercelli, Mario Teufer, Mathias Wolfrum, Federico Mocetti, Stefan Toggweiler, Richard Kobza, Matthias Bossard, Florin Cuculi

1Luzerner Kantons spitai, 2Luzern, Switzerland

BACKGROUND Sirolimus-eluting stents have become the mainstay for percutaneous coronary intervention (PCI). However, recent studies show promising results for paclitaxel-coated balloons, not just in in-stent restenosis, but also in de novo coronary artery disease (CAD). The Solution SLR (sustained limus release) (Medalliance) is a novel sirolimus-eluting balloon that provides a controlled release of drug. We evaluated its performance in all-comers presenting with acute and chronic CAD.

METHODS Patients undergoing PCI with Solution SLR were analyzed from the prospective SIROOP study (Registry to Evaluate the Outcomes of Coronary Artery Disease Patients Treated With Sirolimus or Paclitaxel Eluting Balloons). We evaluated procedural success and