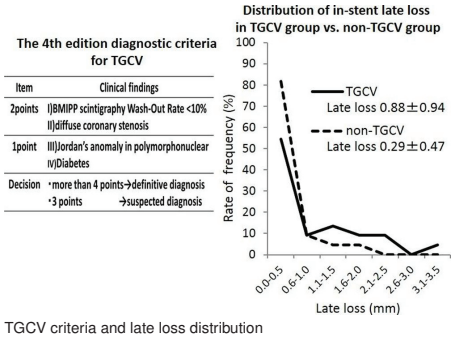
pared with non-TGCV, resulting higher binary restenosis rate was observed in TGCV. TGCV was an independent predictor for in-stent late loss in multiple linear regression analysis.

Baseline characteristics and QCA data

Variables	TGCV	Non-TGCV	p-value
Patients characteristics			
No. of patients	10	20	
Male (%)	70.0	70.0	1.000
Age (years)	69.4±11.4	68.5±10.3	0.829
Diabetes (%)	60.0	65.0	0.789
IGT (%)	40.0	35.0	0.789
Hypertension (%)	100.0	90.0	0.301
Dyslipidemia (%)	80.0	70.0	0.559
Current smoker (%)	30.0	30.0	1.000
Hemodialysis (%)	20.0	0.0	0.038
Lesion characteristics			
No. of lesions	22	22	
RCA / LAD / LCX (%)	27.3 / 50.0 / 22.7	31.8 / 54.5 / 13.6	0.773
Type B2/C (%)	81.8	90.9	0.380
Stent diameter (mm)	2.82±0.38	3.03±0.43	0.085
Stent length (mm)	19.2±5.7	24.1±7.7	0.019
QCA data			
Reference diameter (mm)	2.53±0.59	2.47±0.42	0.735
Lesion length (mm)	17.9±5.3	19.5±7.9	0.421
MLD pre (mm)	0.72±0.49	0.90±0.30	0.152
MLD post (mm)	2.50±0.51	2.61±0.41	0.448
MLD follow-up (mm)	1.67±0.77	2.32±0.61	0.003
Late loss (mm)	0.88±0.94	0.29±0.47	0.011
% DS pre (%)	62.4±13.2	62.9±12.4	0.907
% DS post (%)	6.36±7.3	13.8±8.5	0.003
% DS follow-up (%)	30.5±29.2	17.5±16.7	0.077
Binary restenosis (%)	31.8	4.5	0.019

IGT, impaired glucose tolerance; MLD, minimum lumen diameter; DS, diameter stenosis.



TGCV criteria and late loss distribution

Conclusion: Even with the second or third generation drug-eluting stents, in-stent late loss was significantly greater in patients with TGCV. A novel type atherosclerosis TGCV might enhance neointimal proliferation, and need to be acknowledged as new-found risk factor of restenosis after stent-implantation.

P1663
COMBO stent PCI for elderly patients: one year clinical outcomes and DAPT cessation patterns from the global MASCOT registry

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Background and introduction: The MASCOT registry reported 1-year target lesion failure rates in all-comer patients undergoing PCI with the COMBO dual therapy drug eluting stent, which permits rapid endothelialization. Elderly patients who are less likely to tolerate prolonged dual antiplatelet therapy (DAPT) due to risk of bleeding may derive greater benefit from this stent technology.
Purpose: We sought to describe the 1-year clinical outcomes and DAPT cessation patterns in elderly patients >75 years from the MASCOT registry.
Methods: MASCOT was a prospective, multicenter, all-comer observational study (2614 patients from 60 sites in Europe, Asia, Middle East, South America) with 1-year follow up. Patients were eligible if Combo stent implantation was attempted and DAPT was prescribed per local guidelines. The primary endpoint was 1-year target lesion failure (TLF), defined as a composite of cardiac death, myocardial infarction (MI) not clearly attributed to a non-target vessel or clinically driven target lesion revascularization (TLR). DAPT cessation was systematically collected and adjudicated as discontinuation, interruption or disruption using the PARIS registry definitions. All endpoint events were adjudicated by independent clinical event committees.
Results: Of the study cohort, 18% (n=479) were >75yrs and 72% (n=2135) were ≤75yrs of age. More women comprised the elderly age group (39.7% vs. 19.2%, p<0.01). Elderly patients had higher prevalence of hypertension, diabetes, chronic kidney disease and NSTEMI or stable angina presentations compared to younger patients. There were no differences in the rates of radial PCI (69.8% vs 70.5%), total stent length or stent diameter between the age groups. Elderly patients were more likely to be discharged on oral anticoagulation (14.2% vs. 4.8%, p<0.001). See Figure 1. The incidence of 1-year TLF and individual ischemic events were not significantly higher but bleeding was much more likely in elderly patients. The incidence of DAPT cessation was significantly higher in elderly patients driven by DAPT discontinuation during follow-up.

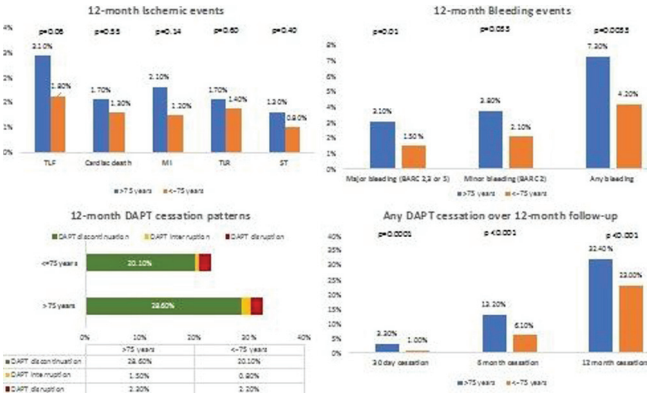

Figure 1

Conclusion(s): Elderly patients >75yrs treated with the COMBO stent had similar ischemic device related outcomes but significantly greater bleeding than younger patients, despite DAPT cessation in one-third of patients over 1-year follow-up.
Funding Acknowledgements: The MASCOT registry was sponsored by Orbus-Neich Medical.

P1664
Clinical outcomes by potency of P2Y12 inhibitor following COMBO DTS PCI: From the COMBO collaboration

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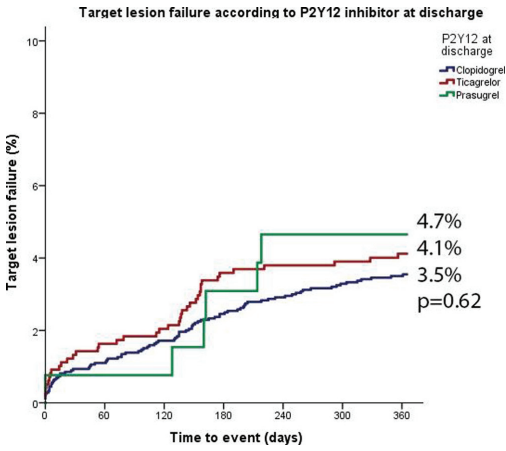
Background and introduction: The COMBO dual-therapy stent (DTS) combines an anti-CD34+ antibody layer for faster endothelialization with sirolimus elution in a biodegradable polymer, considered to be advantageous for patients not able to tolerate longer DAPT duration. Outcomes by potency of P2Y12 inhibitors have not been described with this stent.
Purpose: We sought to describe the prescription patterns and clinical outcomes by discharge P2Y12 inhibitor in patients undergoing attempted PCI with the COMBO stent.
Methods: The patient-level pooled COMBO Collaboration included 3614 patients with attempted COMBO stent placement, enrolled in the prospective, multicenter, all-comer REMEDEE and global MASCOT registries with 1-year follow up. Discharge P2Y12 inhibitor was available in 3589 patients. We excluded 5 patients receiving ticlopidine and compared groups by discharge clopidogrel, ticagrelor or prasugrel. The primary study outcome was 1-year target lesion failure (TLF), defined as a composite of cardiac death, target vessel myocardial infarction (TV-MI) or clinically indicated target lesion revascularization (TLR). All endpoint events were adjudicated by independent clinical event committees.
Results: Of the pooled sample, 68.9% (n=2470) were discharged on clopidogrel,



1-year TLF by discharge P2Y12 inhibitor

27.4% (n=983) on ticagrelor and 3.7% (n=131) on prasugrel. Patients receiving clopidogrel were older than other groups (64.3±11.2 vs. 62.1±10.9 vs. 58.8 vs. ±11.1yrs), with higher prevalence of diabetes (33.2% vs. 20.4% vs. 25.9%), chronic kidney disease (7.3% vs. 4.5% vs. 3.0%) and prior stroke (5.6% vs. 3.0% vs. 3.0%) but lower prevalence of ACS presentation (44.6% vs. 75.2% vs. 76.3%), p<0.01 for all. Prasugrel was less often prescribed to women (24.4% vs. 23.9% vs. 12.2%, p<0.01). Clopidogrel patients less likely underwent radial PCI and received longer total stent length compared to ticagrelor or prasugrel patients. The incidence of 1-year TLF by discharge P2Y12 inhibitor is shown in Figure 1 (p=0.62). There were no significant differences between the groups in the incidence of cardiac death (1.6% vs. 1.1% vs. 1.6%, p=0.63), TV-MI (1.2% vs. 1.2% vs. 0.8%, p=0.37), def/probable ST (0.7% vs. 0.8% vs. 1.6%, p=0.54) or TLR (1.8% vs. 2.9% vs. 3.1%, p=0.09).

Conclusion(s): COMBO stent PCI in all-comer patients resulted in similar rates of 1-year TLF, TV-MI, TLR and ST irrespective of potency of discharge P2Y12 inhibitor.

Funding Acknowledgements: The AMC received a research grant from Orbus-Neich Medical BV for the COMBO collaboration. The MASCOT registry was sponsored by OrbusNeich Medical.

P1665
Outcomes and risk factors for recurrent restenosis in patients treated for coronary in-stent restenosis

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Introduction: Despite advances in percutaneous coronary intervention (PCI) and coronary artery stent design respectively, in-stent restenosis (ISR) remains a relatively common long-term complication of PCI with a reported incidence of 3–20%. The outcomes of patients treated for restenosis are not currently well clarified with evidence lacking regarding consensus in management of ISR cases.

Study aim: To assess trends, management and outcomes, of patients treated for ISR.

Methods and results: This was a cohort study based on this institution's PCI registry. 1012 patients who had PCI for ISR between January 2010 and January 2017 were included in the analysis. Patients with stable angina or acute coronary syndromes (excluding cardiogenic shock) were included. The primary end-points were recurrent restenosis (R-ISR) and MACE (target vessel revascularisation, myocardial infarction and all-cause mortality) recorded at a median follow up of 24 months.

1012 patients were treated for ISR during the time period with a trend to increased rates over time (p=0.02). 419 (41.4%) were treated for stable angina with 593 (58.6%) presenting acutely. 72% of patients were treated with drug-eluting stents (DES) with 28% undergoing treatment with drug-eluting balloon (DEB); with an increased trend for DEB over time. During follow-up, 31.8% had recurrent angiographically confirmed R-ISR with 176 (18.5%) having repeat PCI, 60 (6.3%) undergoing coronary artery bypass grafting (CABG), and 66 (6.9%) managed medically (due to failed PCI, patient preference or CTO). MACE events occurred in 29.7% of patients during follow-up (6.4% mortality, 23.3% TVR/MI). As expected patients with R-ISR had higher event rates during follow-up compared to those without R-ISR (P<0.0001). On multivariate analysis the following independent predictors of recurrent ISR were identified: smaller vessel size (OR 1.49, 95% CI 1.22 to 1.88), total stented length (OR 1.47, 95% CI 1.31 to 1.73, for each 10 mm increase), complex lesion morphology (OR 1.55, 95% 1.21 to 2.21), presence of diabetes mellitus (OR 1.32, 95% 1.19 to 1.46), and history of chronic kidney disease (OR 1.39, 95% CI 1.10 to 1.78).

Conclusion: Management of patients with ISR remains a persistent problem, particularly for those presenting with DES-ISR. This study shows that despite current treatments, R-ISR is still a challenge with a new focus on optimising procedural factors or new treatment options needed to solve this issue.

P1666
Impact of SYNTAX score and Clinical SYNTAX score on 5 years clinical outcomes in patients treated with cobalt-chromium everolimus-eluting stent

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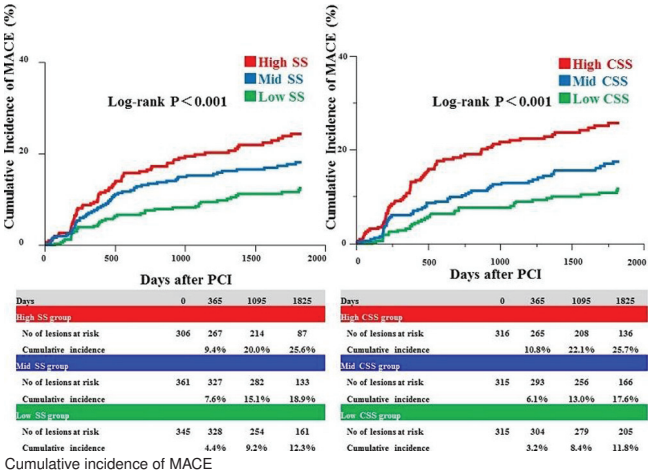
Background: Impact of SYNTAX score (SS) and Clinical SYNTAX score (CSS) on long-term clinical outcomes after cobalt-chromium everolimus-eluting stent (CoCr-EES) implantation remains unclear.

Methods: Between February 2010 and May 2011, 1064 consecutive patients with 1440 lesions were treated only with CoCr-EES implantation. Of these, the SS was calculated in 1012 patients with 1345 lesions and the CSS was calculated in 946 patients with 1262 lesions. The CSS was calculated using age, and baseline left ventricular ejection fraction and creatinine clearance. Patients were divided into the tertile group based on SS and CSS groupings: Tertiles for SS (low SS [1–7], n=345; mid SS [7.5–14.0], n=361; and high SS [14.5–48.0], n=306) and tertiles for CCS (low CSS [1.9–17.1], n=315; Mid CSS [17.2–37.0], n=315; and high CSS [37.1–305.8], n=316). We assessed the cumulative 5-year incidences of major adverse cardiac events (MACE), defined as a composite of cardiac death, myocardial infarction, definite stent thrombosis, and clinically driven target lesion revascularization (CDTLR) based on SS and CSS groupings.

Results: In SS date, cumulative 5-year incidence of MACE was significantly higher in the high SS group than in the other groups (25.6% vs. 18.9% vs. 12.3%, p<0.001), mainly driven by a higher rate of CDTLR (18.4% vs. 14.3% vs. 6.0%, p<0.001). No significant differences in the cumulative 5-year incidence of other events were observed among these groups. High SS group (hazard ratio [HR] 2.19 [vs. low SS], 95% confidence intervals [CI]: 1.46–3.33, p<0.001), hemodialysis (HR 4.05, 95% CI: 2.56–6.15, p<0.001), and diabetes mellitus (HR 1.38, 95% CI: 1.00–1.90, p=0.048) were predictors of 5-year MACE. In CSS date, cumulative 5-year incidence of MACE was significantly higher in the high CSS group than in the other groups (25.7% vs. 17.6% vs. 11.8%, p<0.001). The cumulative incidence of cardiac death, myocardial infarction, stent thrombosis and CDTLR were significantly higher in the high CSS group than in the other groups (11.5% vs. 3.8% vs. 3.6%, p<0.001; 4.5% vs. 3.1% vs. 0.8%, p=0.02; 2.3% vs. 1.4% vs. 0%, p=0.04; 17.0% vs. 14.0% vs. 7.5%, p=0.002, respectively). High CSS group (hazard ratio [HR] 1.96 [vs. low SS], 95% confidence intervals [CI]: 1.43–2.68, p<0.001) and diabetes mellitus (HR 1.57, 95% CI: 1.15–2.15, p=0.005) were predictors of 5-year MACE.



Days	0	365	1095	1825
High SS group				
No of lesions at risk	306	267	214	87
Cumulative incidence		9.4%	20.0%	25.6%
Mid SS group				
No of lesions at risk	361	327	282	133
Cumulative incidence		7.6%	15.1%	18.9%
Low SS group				
No of lesions at risk	345	328	254	161
Cumulative incidence		4.4%	9.2%	12.3%

Days	0	365	1095	1825
High CSS group				
No of lesions at risk	316	265	208	136
Cumulative incidence		10.8%	22.1%	25.7%
Mid CSS group				
No of lesions at risk	315	293	256	166
Cumulative incidence		6.1%	13.0%	17.6%
Low CSS group				
No of lesions at risk	315	304	279	205
Cumulative incidence		3.2%	8.4%	11.8%

Cumulative incidence of MACE

Conclusions: SS and CSS have significantly impact on 5 years clinical outcomes after CoCr-EES implantation.

P1667
Efficacy and safety of an ultra-thin strut sirolimus-eluting stent with biodegradable polymer in all-comers patients undergoing coronary intervention

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Background: Thin stent struts may be associated with reduced vessel injury and use of biodegradable polymers may improve long term outcomes. However, data with earlier stents has been inconsistent thus further studies with newer devices has been needed.

Purpose: To evaluate the efficacy and safety of a new ultra-thin (65um) strut cobalt chromium sirolimus-eluting stent with a hybrid design (closed cell at ends; open cells in middle to reduce edge injury and optimise conformability) in all-comers patients undergoing coronary intervention.

Methods: We enrolled 588 patients from 14 sites undergoing coronary intervention, into a prospective, non-randomised, multi-centre, open-label, observational registry. Inclusion of patients with complex anatomy (long stent lengths, bifurcations and chronic total occlusions) was encouraged. Clinical follow up was scheduled at 1, 9, 12 and 24 months. The primary efficacy endpoint was incidence of major adverse cardiac events (MACE) - cardiac death, non-fatal myocardial infarction (MI), or target vessel revascularisation (TVR) - at 9 months. The primary safety endpoint was the rate of definite or probable stent thrombosis at 9 months.

Results: Mean patient age was 64.1±13.2 years, 20.9% had diabetes, 58.3% had hypertension and 37.9% of patients had multi-vessel disease. Around 1 in 5 had prior MI, 1 in 4 had prior revascularisation and 1 in 4 had acute coronary syn-