Polymorphism	N (%)
PlA	
A1/A1	82 (89.1%)
A1/A2	10 (10.9%)
Glu298asp	
Glu/Glu	81 (88.0%)
Glu/Asp	11 (12.0%)
_922a_g	
A/A	65 (70.7%)
A/G	22 (23.9%)
G/G	5 (5.4%)
Int	
420/420	76 (82.65)
420/393	16 (17.4%)
-786T>C	
TT	58 (63.0%)
CC	9 (9.8%)
TC	25 (27.25)

Conclusions: This study shows that the presence of PlA2 polymorphism is an independent risk factor for coronary in-stent restenosis and a marker for need of new revascularization. Its detection could have important implications in decision making.

TCT-474

Is Early Stent Thrombosis Reduced in Cobalt-Chromium Everolimus-Eluting Stent in Humans?

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Background: Published preclinical studies demonstrated that polymer-coated stents with thin struts exhibit less thrombogenicity as compared to uncoated or thick strut stents (Circulation 2011;123:1400-1409); however, no pathologic studies have been reported in man. We sought to evaluate the pathologic prevalence of early stent thrombosis (ST, ≤30 days) in cobalt-chromium everolimus-eluting stent (CoCr-EES) as compared to sirolimus-eluting (SES), paclitaxel-eluting (PES), and bare metal stents (BMS) in humans.
Methods: A total of 102 stented coronary lesions with duration of implant ≤30 days (CoCr-EES=17, SES=30, PES=39, and BMS=16 MULTI-LINK VISION® [ML VISION, Abbott Vascular, Santa Clara, CA] from 77 autopsy cases were histopathologically evaluated for the prevalence of early ST and its etiology.
Results: Clinical and pathologic characteristics including duration of implant, indications for stenting, stent length, prevalence of bifurcation multistenting, incomplete stent apposition, and medial disruption were comparable among the groups, while the number of stents per lesion was greater in CoCr-EES as compared to SES (p=0.02) (Table). Early ST was identified in 39 of 102 lesions (39%). The prevalence of early ST was the least in CoCr-EES (3 of 17 lesions, 18%), followed by PES (36%) and SES (43%), and was the highest in BMS (56%, p=0.02 vs. CoCr-EES). Etiologies of early ST in the 3 lesions with CoCr-EES were septic thrombi, bifurcation multistenting, and long/overlapping stenting (stent length=70 mm), respectively. Other etiologies for SES, PES and BMS included medial disruption, necrotic core prolapse, strut malapposition, and stent fracture.
Conclusions: CoCr-EES had the lowest prevalence of early ST as compared to SES, PES, and BMS in human autopsy cases, and significant difference was identified between CoCr-EES and BMS (ML-VISION).

Table. Clinical and pathologic characteristics and prevalence of early stent thrombosis in CoCr-EES versus SES, PES, and BMS (ML-VISION)

	CoCr-EES (n=17)	SES (n=30)	PES (n=39)	ML VISION (n=16)	p value: CoCr-EES vs. SES	PES	BMS
Duration of implant (days)	7 (1.5 – 11)	5 (1 – 7)	5 (3-7)	13 (1.3 – 20)	0.25	0.58	0.37
ACS as an indication for stenting	24%	50%	44%	38%	0.08	0.15	0.38
Stent length (mm)	27 (16 – 52)	21 (18 – 35)	22 (16 – 32)	23 (14 – 41)	0.39	0.34	0.41
Bifurcation multistenting	29%	20%	18%	6%	0.46	0.34	0.08
Number of stents per lesion	2.2 ± 1.8	1.4 ± 0.6	1.6 ± 0.8	1.5 ± 0.6	0.02	0.07	0.14
Incomplete stent apposition	12%	10%	15%	13%	0.85	0.72	0.95
Medial disruption	47%	67%	56%	53%	0.19	0.52	0.72
Prevalence of early ST	18%	43%	36%	56%	0.07	0.17	0.02

Values are expressed as mean ± SD, median (interquartile range), or prevalence (%).

TCT-475

Is the Prevalence of Stent Fracture in MULTI-LINK VISION Everolimus-Eluting Stents Different from Bare Metal MULTI-LINK VISION Stents?

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Background: Stent fracture is associated with adverse cardiac events including thrombosis and restenosis where the underlying mechanisms of stent fracture have been considered to be multifactorial. It remains unknown whether drug-eluting and bare metal stents with similar platform exhibit difference in the prevalence of stent fracture in humans.
Methods: A total of 117 stented coronary lesions (70 cobalt chromium everolimus-eluting stents [CoCr-EES] and 47 bare metal MULTI-LINK VISION® stents [ML VISION, Abbott Vascular, Santa Clara, CA]) from 83 autopsy cases with matched duration of implant (≤3 years; median=180 days) were analyzed. Of these, 18 (15%) had different type of stents in the same lesion (9 [13%] in CoCr-EES and 9 [19%] in ML VISION). Stented arteries were removed from the heart and high contrast radiography was performed to determine the presence and degree of stent fracture, followed by histologic assessment for patency, thrombosis and restenosis.
Results: There were no significant differences in clinical indications, duration of implant, prevalence of overlapping stents, and number of stent per lesion between the groups, while stent length limited for each stent type was longer in CoCr-EES as compared to ML VISION (Table). Stent fracture was identified in 8 of 70 lesions with CoCr-EES (11%), which did not differ from ML VISION (4 of 47 lesions [8.5%], p=0.61). The prevalence of grade V fracture (acquired transection with gap in the stent body) was also comparable between CoCr-EES (1.4%) and ML VISION (2.1%, p=0.77). Moreover, fracture-related adverse events did not differ between the groups (CoCr-EES=3 restenosis [4.3%] vs. ML VISION=1 restenosis [2.1%], p=0.53).
Conclusions: The current pathologic study with high contrast radiography assessment showed similar prevalence of stent fracture in CoCr-EES and ML VISION in humans.

Table. Clinical characteristics and prevalence of stent fracture in CoCr-EES versus ML VISION

	CoCr-EES (n=70)	ML VISION (n=47)	p value
ACS as an indication for stenting	33 (47%)	14 (30%)	0.06
Duration of implant (days)	174 (30 – 360)	210 (14 – 540)	0.38
Stent length (mm): Only CoCr-EES or ML VISION	21 (15 – 29)	18 (12 – 24)	0.045
Stent length (mm): Including different type of stents	23 (15 – 38)	20 (12 – 35)	0.25
Overlapping stents: Only CoCr-EES or ML VISION	21 (30%)	10 (21%)	0.29
Overlapping stents: Including different type of stents	29 (41%)	17 (36%)	0.57
Number of stent (CoCr-EES or ML VISION) per lesion	1.5 ± 1.1	1.3 ± 0.6	0.12
Prevalence of stent fracture (all)	8 (11%)	4 (8.5%)	0.61
Grade I fracture	3 (4.3%)	2 (4.3%)	0.99
Grade II fracture	1 (1.4%)	1 (2.1%)	0.77
Grade III fracture	3 (4.3%)	0	0.15
Grade IV fracture	0	0	-
Grade V fracture	1 (1.4%)	1 (2.1%)	0.77
Fracture-related adverse events	3 restenosis (4.3%)	1 restenosis (2.1%)	0.53

Values are expressed as mean ± SD, median (interquartile range), or n (%).

TCT-476

Angiographic and clinical analysis of 164 cases of longitudinal stent deformation: comparison of cases from a multicentre case series with cases identified from the MAUDE database

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Background: A dramatic increase in reports of longitudinal stent deformation (LSD) in the MAUDE database has recently been described. However, as a complications database these reports may not be representative of typical cases - possibly involving

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