Demographics and procedural characteristics of the bleeding vs. no bleeding in the femoral cohort

VARIABLES	No bleeding n=480	Bleeding n=79	p value
Female %	35.4	39.2	NS
Female Age years	67.5	67.8	NS
Male Age years	62.8	65.3	NS
BMI	28.7±0.24	27.5±0.77	NS
Weight kg	81.4	75.2	NS
Stable Angina %	36.3	13.9	<0.0001
Acute coronary syndrome %	63.7	86.1	NS
Cardiogenic shock %	3.5	24.1	<0.0001
Previous PCI %	26.0	27.9	0.74
Previous CABG %	14.4	12.7	0.69
Chronic renal failure %	5.0	11.4	0.025
Gp2b3a used %	12.5	27.8	0.0004
Embolic protection device used %	2.0	0	0.219
Intra-aortic balloon pump used %	3.75	24.0	<0.0001
Diagnostic device used %	10.4	10.1	NS
Rotablation used %	3.9	8.9	0.042
Left Main Stem %	5.6	12.7	0.019
Non-LMS %	94.3	87.3	0.019
Graft(s) %	9.1	3.1	NS
CTO %	21.1	6.8	<0.0001
6Fr sheath %	84.0	60.8	<0.0001
7Fr sheath %	7.5	21.5	<0.0001
8Fr sheath %	6.7	13.9	0.03
No. of vessels attempted	535	93	0.0958
No. of lesions attempted	731	130	
Procedural success %	87.2%	92.4%	

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A Propensity Score Analysis of Venous Access Closure Using Extravascular Closure Device In High Risk Patients

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Background: Recent advances in catheter techniques have resulted in an increased number of complex percutaneous cardiac interventions requiring large venous access and full anticoagulation. Manual compression (MC) has been the standard approach to hemostasis and has been associated with significant discomfort, delayed ambulation, more involved nursing care, overdue hospital discharge and groin complications. Extravascular closure devices (ECD) do not have any intraluminal components and use water-soluble, bioabsorbable, polyethyleneglycol matrix. ECDs, like Mynx [AccessClosure,CA] are therefore an excellent choice for venous access closure.
Methods: Between 2009 and 2012, 1521 patients underwent various cardiac interventions requiring femoral vein access and had immediate post-catheterization venous access site closure. We selected high risk patients for groin complications (≥8F and or ACT>200 sec at closure) who underwent venous access closure with either Mynx device (Mynx group, n= 277) or MC (control group, n=204). Propensity score analysis was used to control for confounding/bias. Bleeding Academic Research Consortium (BARC) definition used for bleeding. Access site complications evaluated at discharge and 4 weeks.
Results: A total of 481 veins were included in analysis. Baseline and procedural characteristics were similar between groups. At closure, average ACT was higher for Mynx group, 243 sec vs. 146 sec (p< 0.001). Failure to achieve hemostasis, converting to MC for Mynx group or requiring extended MC (>30 min) for control group, was significantly reduced for Mynx compared to control group (1.5% vs. 11%, p< 0.001). Mean time to ambulation was significantly shorter for Mynx group (3 hours vs. 7 h, p< 0.001). One hematoma noted in the Mynx group vs 9 for control group (p=ns). No episodes of significant bleeding were noted (BARC Type 2, 3 or 5) for the Mynx group while there was 1 patient in MC group who developed subcutaneous hematoma confirmed on venous ultrasound and required surgery.
Conclusions: In this propensity score analysis of high risk patients, Mynx device use for venous access site closure was associated with rapid hemostasis and early ambulation compared to manual compression.