obstructive pulmonary disease (COPD), diabetes mellitus, coronary artery disease (CAD), lack of statins on treatment (1 point each). We calculated the total risk score as the sum of all risk factors' points, and grouped them into 4 categories. Another 334 asymptomatic patients were extracted from two tertiary care medical centers to derive a validation cohort (VC). The derivation cohort (DC) and VC were clinically similar in terms of age (74 vs. 72 years) and gender (males 66% vs. 63%). Among risk factors, they differed only for CAD (20% vs. 30% P < 0.001) and statin therapy (44% vs. 60% P < 0.001). They were comparable as per diabetes (29% vs. 24% P = 0.09), mean creatinine (1.13 vs. 1.1 mg/dL, P = 0.58) and COPD (13.2% vs. 10.5%, 0.21).

Results: Median follow up was 56 months for DC and 65 months for VC. Long term mortality was comparable among DC and VC: overall survival was $98.9 \pm 0.4\%$ vs. $96.7 \pm 0.1\%$ at 1 year; $92.7 \pm 1.1\%$ vs. $91 \pm 1.6\%$ at 3 years and $84.7 \pm 1.7\%$ vs. $85.2 \pm 2\%$ at 5 years. When comparing groups, 5 years survival rate was $97 \pm 1.5\%$ for patients with score $0-3$, $88.4 \pm 2.2\%$ for score $4-7$, $69.6 \pm 4.7\%$ for score $8-11$, and $48.1 \pm 13.5\%$ for score ≥ 12 (P < 0.0001) in the DC (fig. 1). Similarly in the VC we found a $95.5 \pm 2\%$ 5 years survival for score $0-3$, $89.5 \pm 2.7\%$ for score $4-7$, $65 \pm 6.1\%$ for score $8-11$ and $44.8 \pm 14.1\%$ for score ≥ 12 (P < 0.0001).

Conclusion: Our scoring system is a simple, 6 variables clinical tool for prediction of post-operative life expectancy. The score showed to predict adequately the long-term survival in a validation cohort from two different medical centers. Patients with a score >8 have a poor long term survival, and the advantage of CEA in this subgroup is questionable. We believe that our score may help clinicians while selecting asymptomatic patients who would benefit from CEA.

Stroke/Death Rates Following Carotid Artery Stenting and Carotid Endarterectomy in Contemporary Administrative Dataset Registries: A Systematic Review.

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Introduction: Randomized trials have reported contradictory findings regarding outcomes after carotid artery stenting (CAS) versus carotid endarterectomy (CEA). Despite this, the 2011 American Heart Association (AHA) guidelines expanded CAS indications, partly because of data from the Carotid Revascularization Endarterectomy versus Stenting Trial (CREST), but also because of improving outcomes in Industry-sponsored 'high risk for CEA' CAS Registries. The aim of the current systematic review was to see whether there was a parallel reduction in procedural risk after CAS in contemporary administrative dataset registries.

Methods: PubMed/Medline, Embase and Cochrane databases were systematically searched from January 1, 2008 until February 23, 2015 for administrative dataset registries reporting outcomes after both CEA and CAS.

Results: Twenty-one registries reported outcomes after >1,500,000 procedures. CAS had similar stroke/death rates with CEA in one registry involving 'average risk' asymptomatic and in two registries involving 'average risk' symptomatic patients. Stroke/death rates after CAS were significantly higher than CEA in 9/15 registries involving 'average risk' asymptomatic and in 11/18 registries involving 'average risk' symptomatic patients. In five registries, CAS was associated with higher stroke/death rates than CEA for both symptomatic and asymptomatic patients, but formal statistical comparison was not reported. CAS was associated with stroke/death rates that exceeded risk thresholds recommended by the AHA in 9/15 registries involving 'average risk' asymptomatic patients and in 13/18 registries involving 'average risk' symptomatic patients. In 5/18 registries, the procedural risk after CAS in 'average risk' symptomatic patients exceeded 10%.

Conclusion: Data from contemporary administrative dataset registries suggest that stroke/death rates following CAS remain significantly higher than after CEA and frequently exceed accepted AHA thresholds. In this systematic review, there was no evidence of a sustained decline in procedural risk after CAS. The extremely high published risks in some symptomatic registries suggest that clinical governance is not being applied.

Genetic Polymorphisms Influence in the Response to Clopidogrel in Peripheral Artery Disease Patients Following Percutaneous Transluminal Angioplasty

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Introduction: Clopidogrel has provided significant reduction in major vascular events in patients with peripheral artery disease (PAD), particularly among those following PTA. Clopidogrel antiplatelet effects differ according to genotype ABCB1 and CYP2C19, establishing normal, intermediate and poor metabolizers; and good or bad carriers. Intermediate and poor metabolizers (CYP2C19 *1/*2,*2/*2) and bad transporters (ABCB1TT) are responsible for the poor antiplatelet drug response. These polymorphisms have been associated with differences in clopidogrel response in acute coronary syndrome patients but effects in peripheral artery disease are still understudied.

To determine the onset of ischemic vascular events requiring reoperation of the affected limb or amputation in patients undergoing PTA (+/- stent) during one year after treatment and to study the association with the presence of genetic polymorphisms CYP2C19 and ABCB1 (separately and combined) a case-control study was performed.

Methods: 72 patients with PAD of the lower limbs under PTA (+/- stent) and treated with clopidogrel were selected. CYP2C19*2 (rs4244285), CYP2C19*3 (rs4986893) and ABCB1 (rs1045642) polymorphisms were genotyped using Taqman allelic discrimination technique to compare post-operative results.

Results: Out of the 72 patients included in the study, 18 were CYP2C19*2 allele carries, no patient carried CYP2C19*3 allele and 14 patients were ABCB1TT genotype. Out of the 72 patients, 25 (34.7%) had an event during follow up (1 year). Patients with at least some loss of function had a higher rate of events compared to patients with no loss of function allele (OR = 5.0, 95% CI 1.75 −14.27, p = 0.003), and patients with some loss of function allele were associated with a worse Fontaine evolution (OR = 13.96, 95% CI 4.44−43.82, p < 0.0001). Reduced and non metabolizer patients also had a higher rate of events compared to good metabolizer patients (OR = 4.49, 95% CI 1.25 −13.84, p = 0.009) and a worse outcome Fontaine grade (OR = 8.31, 95% CI 2.36−29.16; p = 0.001). However, poor transporter patients didn't show a statistically significant higher rate of events comparing to good transporters although they showed a worse Fontaine grade evolution (OR = 4.75, 95% CI 1.32− 17.07, p = 0.017)

Conclusion: Poor metabolizer patients of clopidogrel have a higher risk of major ischemic events and worst Fontaine grade evolution. Our results support the role of CYP2C19 and ABCB1 polymorphisms as genetic markers for vascular events in patients with peripheral vascular disease of the lower limbs undergoing PTA and treated with clopidogrel.

Polymeric Microspheres as Novel Delivery Platform for Pro-angiogenic Therapy

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Introduction: Angiogenesis, the sprouting of new capillaries from the microvasculature, improves blood perfusion of ischemic tissue. Various pro-angiogenic factors have the potential to stimulate and enhance angiogenesis. However, due to poor drug delivery and rapid clearance, clinical trials on pro-angiogenic therapeutics in peripheral arterial disease have only been marginally successful. We aimed to develop a polymer-based drug delivery platform enabling local, sustained delivery of pro-angiogenic