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IN BRIEF

GENETICS

Variants in *ASGR1* linked to reduced CAD risk

Given that non-HDL cholesterol encompasses all cholesterol-containing proatherogenic lipoproteins, it is believed to be a better predictor of coronary artery disease (CAD) risk than LDL cholesterol alone. To identify new genetic variants that affect the levels of non-HDL cholesterol, Nioi and colleagues sequenced the genome of 2,636 individuals from Iceland, and found a noncoding 12-base-pair deletion in intron 4 of *ASGR1*, a major subunit of the asialoglycoprotein receptor that can mediate the endocytosis and degradation of numerous desialylated glycoproteins. Heterozygous carriers of this *ASGR1* variant had a lower level of non-HDL cholesterol ($P = 1.0\times10^{-16}$), in addition to a 34% lower risk of CAD (95% CI 21–45, $P = 4.0\times10^{-6}$). In a larger set of sequenced samples from the Icelandic individuals, another loss-of-function *ASGR1* variant associated with lower non-HDL cholesterol levels was identified. According to the investigators, "these variants disrupt *ASGR1* function and represent a link between the sialylation pathway and atherosclerotic diseases."

ORIGINAL ARTICLE Nioi, P. *et al.* Variant *ASGR1* associated with a reduced risk of coronary artery disease. *N. Engl. J. Med.* http://dx.doi.org/10.1056/NEJMoa1508419 (2016)

VALVULAR DISEASE

Bivalirudin versus heparin for the treatment of cerebral embolization post-TAVR

Cerebral embolization is a common complication of the transcatheter aortic valve replacement (TAVR) procedure, but pharmacological strategies for the prevention of cerebral emboli have not yet been established. Investigators of the prespecified MRI substudy of the BRAVO-3 randomized trial sought to compare bivalirudin with unfractionated heparin for reducing cerebral embolization in patients undergoing TAVR. The proportion of patients with ≥1 new cerebral emboli, detected by MRI, was not different between the bivalirudin and heparin treatment groups (65.5% vs 58.1%, $P = 0.55$). Furthermore, the total volume of emboli and the proportion of patients with a clinical neurological deficit at 48 hours and 30 days post-TAVR were also not different between the two treatment groups. "The BRAVO-3 MRI study confirms the high rate of clinically silent cerebral embolization after TAVR as reported in other trials, without demonstrating any benefit regarding procedural anticoagulation with bivalirudin versus heparin in reducing these events," conclude the investigators.

ORIGINAL ARTICLE Van Belle, E. *et al.* Cerebral embolization during transcatheter aortic valve replacement: the BRAVO-3 MRI study. *J. Am. Coll. Cardiol.* http://dx.doi.org/10.1016/j.jacc.2016.05.006 (2016)

ACUTE CORONARY SYNDROMES

Use of antipsychotic drugs linked with risk of MI

The adverse cardiovascular effects of antipsychotic treatment are well documented, but whether antipsychotic agents can increase the risk of myocardial infarction (MI) remains unclear. Yu *et al.* performed a systematic review and meta-analysis of nine observational studies comparing the incidence of MI in patients receiving antipsychotic drugs with those who were not receiving treatment. Patients receiving antipsychotic drugs had a 1.88-fold higher risk of developing MI than untreated individuals. Furthermore, short-term use of antipsychotic medication (<30 days) was associated with an even greater risk of MI.

ORIGINAL ARTICLE Yu, Z. *et al.* Use of antipsychotics and risk of myocardial infarction: a systematic review and meta-analysis. *Br. J. Clin. Pharmacol.* http://dx.doi.org/10.1111/bcp.12985 (2016)