Abstract: P871

Coronary artery aneurysms: clinical features, management and long-term outcomes, insights from the international coronary artery aneurysm registry (CAAR).

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Background

Coronary Aneurysms are a focal dilatation of an artery segment of >1.5-fold the normal size of adjacent segments. Some limited series suggested an incidence of 0.3-12%. However, coronary aneurysms are not mentioned in practice guidelines and several questions remain unanswered.

Purpose

To investigate its clinical profile, prognostic predictors, and long term outcomes.

Methods

The coronary artery aneurysm registry (CAAR, NCT02563626) is a collaborative effort involving 32 hospitals across 9 countries (Canada, Cuba, Czech Republic, Germany, Italy, Netherlands, Spain, USA and Uruguay). When eligibility was uncertain, cases were reviewed by a core lab.

Results

We reviewed 436,467 consecutive angiographies between 2004-2016. 1,565 patients were ambispectively included. Global incidence was 0.35%. Most were male (78.5%) with a mean age of 65 years. Cardiovascular risk factors were frequent. An aortopathy history was present in 8.7% but a Kawasaki antecedent was unfrequent (0.3%).

The main indication for cath was an ACS in 966 cases. Most aneurysms were saccular and 82 giant. The number of aneurisms was low, mainly with 1-2 (95.8%) and only 3 patients with =6, proportionally with more coronary stenosis. The most affected artery was the LAD. Aortopathy was related with higher number of aneurysms. Most received any revascularization, commonly percutaneous (PCI). During a follow-up of 37.2
months, 485 suffered a MACE, (death/heart failure/unstable angina/reinfarction) and 240 died. Age, race, diabetes, renal failure, peripheral disease, acute cath, coronary stenosis, LVEF and anticoagulation remained as predictors of death/MACE after multivariate adjustments, without no major differences comparing CABG vs PCI. No restenosis was found in aneurysm with DES but those with BMS suffered 4 (p=0.002). MACE and death were more frequent in patients who received BMS.

Conclusions

Coronary aneurysmal disease is not uncommon. It is associated with severe coronary stenosis and a high cardiovascular risk burden, pointing out an aggressive atherosclerotic status. Antiplatelet therapy is a reasonable option and interventional procedures safe and effective, compared with surgery. Drug eluting stents should be preferred as the default strategy.