SELECTED ARTICLES

We hereby present comments on a selection of articles recently published in internationally acclaimed medical journals. We believe these papers deserve special attention due to the quality and importance of the conclusions reached by the studies. Our objective is to keep an open look on new aspects of scientific research or review articles that may, in turn, update aspects of our own medical specialty.

Also, the Editorial Committee will consider suggestions on recent articles that the readers think deserve to be commented in this section (revista@caccv.org.ar).

LEFT MAIN CORONARY ARTERY DISEASE: SURGERY VS PERCUTANEOUS TREATMENT

HUCKABY LV, SULTAN I, FERDINAD FD ET AL. MATCHED ANALYSIS OF SURGICAL VERSUS PERCUTANEOUS REVASCULARIZATION FOR LEFT MAIN CORONARY DISEASE

The Annals of Thoracic Surgery (April 26, 2021),
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Traditionally, the presence of significant left main coronary artery disease (LMCAD) (> 50%) is considered an indication for surgical revascularization. However, recent studies suggest that percutaneous treatment —percutaneous coronary intervention, PCI— can offer similar results both in the short- and long-term. Registries indicate that in recent years a growing number of patients with this disease are treated with PCI instead of CABG (coronary artery bypass grafting). However, compared to the cohorts of patients from the NOBLE and EXCEL studies, real-world patients treated with PCI are significantly older and have more comorbidities compared to those treated with CABG. Huckaby LV et al., from the Unit of Cardiac Surgery at Pittsburgh University School of Medicine, Pittsburg, PA United States compared the results from their center in patients treated from 2010 through 2018 by applying a matching algorithm —a greedy propensity-matching technique— to create balanced groups and then compare the real-world results and study the 5-year mortality rate and the rate of cardiac and cerebrovascular events.

All adult patients with LMCAD treated throughout this period with either one of the 2 techniques available were included in the study. A total of 1091 patients were identified (CABG, 898; PCI, 193); the application of the algorithm generated 2 separate groups with similar characteristics (CABG, 215; PCI, 134). The result analysis suggested that the overall mortality rate at 30 days, and 1 and 5 years was higher in the PCI group (at 1 year: 77.61% vs 88.37%; at 5 years: 48.77% vs 75.62%). The rate of cardiac and cerebrovascular at 5 years was also higher in the PCI group (64.93% vs 32.56%, $P < .001$). The authors proved that in the PCI group the rate of myocardial infarction was higher (19.40% vs 7.44%, $P = .001$), as well as the need for reintervention (26.12% vs 7.91%, $P < .001$) at 5 years. The statistical adjustments confirmed these results at 5 years (a lower mortality rate with CABG, risk ratio, 0.40, $P < .001$, and a lower rate of cardiac and cerebrovascular events, 0.37, $P < .001$). Authors want to make clear that no statistically significant differences were seen in the rates of strokes reported in either one of the 2 cohorts, which is why this last difference corresponds to cardiac events only (infarctions and need for revascularization).

The inter-group study results are similar to those of patients from this center, which means that there are substantial advantages in both survival and event occurrence in patients with LMCAD treated with CABG. Nonetheless, results should be double checked in the corresponding prospective studies.