Abstract:

Background: The use of the internal mammary artery has been shown to be the best graft to perform myocardial revascularization surgery (CABG) with 10-year patency rates between 95% and 97%. Recent studies have shown how the use of bilateral internal thoracic artery (BITA) can improve the survival of these patients with few risks.

Methods: Descriptive and prospective study with clinical follow-up of 1 year after the surgery of patients undergoing CABG with BITA utilization between 2015 and 2017 in a reference hospital of Medellin, Colombia. A telephone survey was used for follow-up.

Primary outcomes were evaluated, such as mortality due to cardiovascular causes of coronary origin, angina pectoris, new diagnosis of acute myocardial infarction and need for percutaneous intervention. Secondary outcomes are number of hospitalizations for angina or acute coronary syndrome, as well as presentation of mediastinitis, infection of the operative site and dehiscence of the sternum within the first year after the BITA.

In this study, categorical variables are expressed as proportions, while continuous variables as mean ± standard deviations. Additionally, primary outcomes were analyzed with the Kaplan-Meier actuarial methods. SPSS Statistics Version 25.0 (SPSS, Inc., Chicago, IL) was used to perform all statistical analyses.

Results: 30 patients were enrolled (27 male), mean age 55.5 +/- 7. Stay in ICU 2.6 +/- 5 days. Hospital Stay 12.9 +/- 4. Follow up of 27 patients, 3 patients were lost. There was no mortality. Two patients required coronary angiography after surgery. One required angioplasty and Stent from the left mammary to the anterior descending artery anastomosis at 6 months. One patient died 2 months after surgery of unknown cause. There were no wound infections, mediastinitis or sternal dehiscence.

Conclusions: Our findings suggest that CABG with BITA has excellent results in the medium term and does not increase the number of problems related to infection, mediastinitis or sternal dehiscence.