Abstract No. **54**
Category: **Valvular Heart Disease**
Title: **Robotic Cardiac Surgery In Colombia A New Experience In A Thirdworld Environment**
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Abstract:

Background: This paper aims to analyze the postoperative clinical outcomes of patients who were treated with robotic cardiac surgery for cardiac surgical heart disease at a referral institution between 2017 and 2018 in Bogota, Colombia. We aimed to review the prognosis and survival, as well as the complications and thus evaluate the first cases of robotic cardiac surgery in Colombia.

Methods: This is an observational, descriptive, case series study. We performed a retrospective review of electronic medical records from 2017 to 2018 of patients undergoing cardiac robotic surgery at a referral institution. We evaluated: sex, age, origin, surgical technique, associated procedures, associated surgical pathologies (valvulopathies or coronary disease), preoperative and postoperative ventricular function, use of blood transfusions ,ICU and hospital length of stay, complications and, early and late mortality at 1 year.

Results: 5 cases (100%) were successfully completed robotically, three cases of mitral valve repair and two of atrial septal defect closure; the range of ages was between 55 and 59 years, 60% were male. Average aorta cross-clamping time were 70 ± 40 minutes in atrial septal defect closure and in mitral valve repair was 114 ± 90 minutes. The median time of cardiopulmonary bypass was 228.4 min. The median length of stay was between 2 and 4 days. Early mortality (30 days) rate and Late mortality (1 year) was 0%. There were no changes in ventricular function in postoperative state, measured by echocardiography. None of the patients needed reoperation for bleeding or any other cause. Non-lethal postoperative complications were observed. None of our patients developed renal injury. 100% of the patients were in sinus rhythm after discharge and in the postoperative control. All our patients were discharged with only acetaminophen for pain control and they began their activities on average 8 days after surgery.

Conclusions: Clinical experience with robot-assisted surgery shows that it is a feasible technique for cardiac surgery in our country. It is important to mention that Columbia is a third world country with significant limitations in applying this technique because of cultural economic, and health insurance considerations. Despite this fact we, as a referent cardiac surgery institution will continue giving the best and innovating treatment to our patients.