

Abstract No. **45**

Category: **Vascular Medicine**

Title: **Clinical characteristics, prognostic factors and post-operative follow-up of patients with complex coarctation, hypoplasia or interruption of the aortic arch in a high complexity Hospital in Bogota, between 2006 and 2019. Retrospective multivariate review**

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Abstract:

Introduction: Coarctation of the aorta is a frequent pathology, which refers to the narrowing of the aorta with decreased flow. The combined early and late mortality of the reparation in a single time has been reported in 18-42%. 55 patients were operated on with this pathology. In the last 3 years we have introduced reconstruction with pericardium and partial union of the descending aorta to the aortic arch in the posterior portion. The medial face is reconstructed with pericardium giving a better result, less traction of the tissue, and greater resection of the ductal tissue. We make brain protection through the brachiocephalic trunk by redirecting the arterial cannula to the brachiocephalic trunk once the 24 degrees are reached. At the end of the reconstruction, we reposition the cannula to deaeration and heating.

Objective: We want to identify the most important factors that determine the prognosis and survival of patients with coarctation, hypoplasia or interruption of the aortic arch, and describe the results of the technique implemented.

Methods: Basic review of Cardiovascular Surgery from 2006 to 2019 identifying patients undergoing aortic arch surgery or complex aortic coarctation. The data were tabulated according to the determined variables and a multivariate study was carried out that allowed us to analyze the data and obtain conclusions. We excluded the clinical records of patients without adequate registration of the variables under study, and to whom postoperative follow-up could not be performed. Subsequently, these data were compared with the existing literature in publications on surgical treatment of the aortic arch.

Results: Fifty-five patients with anomalies of the aorta were intervened, among which we found complex aortic coarctation, hypoplastic aortic arch and interrupted aortic arch. Average age 27 days of life. 31 male patients. Intrahospital mortality less than 1 month, in aortic arch reconstruction: 35%. Infections of the operative site: 11.5%. Reoperation for postoperative bleeding: 8%. Open thorax in aortic arch reconstruction: 44%.

Neurological complications: 18%. Renal failure: 60% management with peritoneal dialysis.

Discussion: Aortic arch surgery is considered to be highly complex. Our results showed a high mortality with a significant percentage of complications at the level of the wound, nervous system and renal system.

Our limitations at the substrate level of patients, late diagnosis and malnutrition lead to greater complications, however mortality and morbidity are in proportion to international descriptions.