

HYBRID APPROACH TO RECOARCTATION OF THE AORTA IN CHILDREN WITH HYPOPLASTIC LEFT HEART SYNDROME AFTER THE NORWOOD PROCEDURE

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BACKGROUND

Recoarctation of the aorta after the Norwood procedure in patients with hypoplastic left heart syndrome (HLHS) may lead to catastrophic dysfunction of the right ventricle. Usually, the balloon angioplasty is performed before the second-stage procedure.

OBJECTIVE

The aim of the study is to present the new hybrid approach to balloon angioplasty of recoarctation of the aorta performed during the second surgical procedure in hybrid setting, when the balloon is introduced into the aorta through the aortic cannula.

METHODS

We reviewed the records of 8 patients with HLHS who underwent the balloon angioplasty of recoarctation of the aorta during the second, surgical procedure. After the completion of surgical procedure (Glenn or hemi-Fontan) the 10 or 12 Fr aortic cannula was used as the arterial access to introduce the balloon into the recoarctation place.

RESULTS

The mean age at the combined procedures were performed at 5.3 ± 4 months. The mean gradient across the recoarctation was reduced from 31 ± 7 mmHg to 12 ± 6 mmHg. There were no procedure-related complications or deaths.

CONCLUSION

The balloon angioplasty of recoarctation performed in hybrid way during the second stage of surgical pathway in patients with HLHS is effective, fast and peripheral vessel-saving procedure. That strategy may reduce the total number of procedures and anesthesia in patients with single ventricle congenital heart defects.