



MEETING ABSTRACT

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Repair for the Anomalies of Ventriculoarterial Connection with Ventricular Septal Defect and Left Ventricular Outflow Tract Obstruction

Woong-Han Kim*, Jeong Ryul Lee, Yong Jin Kim*

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Background/Introduction

Anomalies of ventriculoarterial connection with ventricular septal defect (VSD) and left ventricular outflow tract (LVOT) obstruction such as transposition of the great arteries, double-outlet right ventricle, double-outlet left ventricle, and Taussig-Bing anomaly had a wide variety of spectrum, and several operative techniques have been performed according to diverse anatomical characteristics without standard operative selection guidelines.

Aims/Objectives

This study was undertaken to compare the outcomes of the Lecompte procedure and Rastelli repair in anomalies of ventriculoarterial connection with VSD and LVOT obstruction.

Method

Over a 35-year period (1979- 2014), 95 patients underwent complete repair for anomalies of ventriculoarterial connection with VSD and LVOT obstruction. Fifty patients (52.6%) underwent the Lecompte modification, and median age and weight were 1.95 years (range: 0.30-12.48) and 10.1 kg (range: 5.7-35). Forty five patients (47.4%) underwent the Rastelli operation, and median age and weight were 3.25 years (range: 0.36-46.15) and 13.0 kg (range: 5.9-55).

Results

There were thirteen deaths after complete repair. Twenty three (46.0%) patients in the Lecompte group underwent reoperation, and thirty three (73.3%) in the

Rastelli group underwent reoperation. Freedom from reoperation was $25.2 \pm 9.4\%$ at 25 years in the Lecompte group and $5.5 \pm 4.8\%$ at 27 years in the Rastelli group ($p = 0.01$). Freedom from reoperation for right ventricular outflow tract (RVOT) obstruction was $49.6 \pm 9.0\%$ at 25 years in the Lecompte group and $6.8 \pm 5.8\%$ at 27 years in the Rastelli group ($p = 0.01$). Freedom from reoperation for LVOT obstruction was $88.5 \pm 5.4\%$ at 25 years in the Lecompte group and $60.7 \pm 10.4\%$ at 33 years in the Rastelli group ($p = 0.01$).

Discussion/Conclusion

The Lecompte procedure and Rastelli repair provide satisfactory results at long-term follow-up. Substantial late morbidity is more associated with RVOT obstruction, and LVOT obstruction in Rastelli repair rather than Lecompte procedure.

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