

Rastelli Operation with a Custom-made “Valved Conduit” in an ACHD Case

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In this video, we are presenting a 36 years old woman applied with extreme cyanosis and short of breath followed with mis-diagnosis of a large interventricular septal defect (VSD) and pulmonary hypertension over the years. Having heard a loud and high-pitched pulmonary stenosis murmur on auscultation as a warning sign, the patient was referred to a pediatric cardiologist instead of her routine adult cardiologist. This time the echocardiography revealed a double outlet right ventricle (DORV) with extremely tight pulmonary stenosis and a large canal VSD which is commonly seen in such cases. We decided to close the large VSD with intracardiac tunnel patch and to supply pulmonary flow with a valved conduit as a Rastelli procedure⁽¹⁻⁵⁾. Due to the unavailability of a suitable sized valved conduit during the pandemic, we decided to tailor a custom-made valved conduit mounting size 25 SORIN biologic valve in a 28 mm JOTEC Coated Dacron graft.

The patient could take off cardiopulmonary bypass with positive inotropes and was discharged at two weeks

postoperative. She is in New York Heart Association Functional Classification (NYHA) Class I status at fourth postoperative month after discharge.

Double outlet right ventricle is known as a connatural congenital heart disease in which both aorta and pulmonary trunk originate predominantly or entirely from the right ventricle with pulmonary outflow tract obstruction⁽⁶⁾.

According to Anderson Classification both preoperative and preoperative assessments revealed as a Taussig Bing type of DORV associated with sub pulmonary VSD with transposition of great arteries⁽⁶⁻⁸⁾.

After carefully echocardiographic and angiographic assessment of anatomy we decided biventricular repair with Rastelli procedure since both ventricles seemed as adequate size to reconstruct left ventricle outflow tract and right ventricle outflow tract properly^(1,2,7,8).

Keywords: Rastelli operation, Adult Taussig-Bing, DORV, Custom-made valved conduit

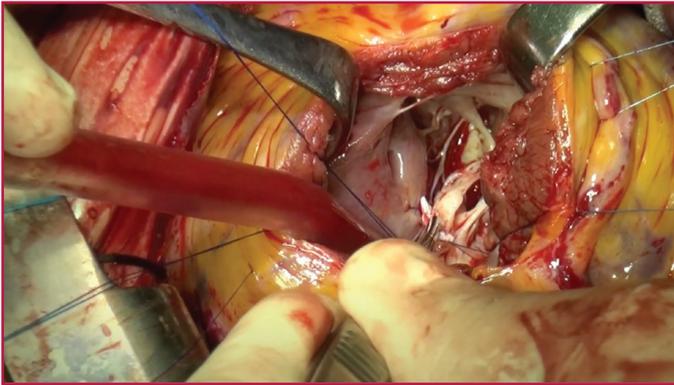


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**Video link:**

https://www.youtube.com/watch?v=_vwqX6queEk&has_verified=1

Ethics

Informed Consent: Informed consent was obtained from the patient.

Peer-review: Externally peer-reviewed.

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