**Konno-Rastan Combined with Manouguian procedure for Small Aortic Annulus and anomalous coronaries**

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**Abstract:**

Aortic root enlargement (ARE) is an established procedure to deal with small aortic annulus. It becomes very important to place adequate size prosthesis to prevent patient-prosthesis mismatch (PPM). ARE procedures are technically demanding operations, particularly in obese patients. The presence of coronary artery anomalies adds more complexity to the procedure. We present an interesting case of 22 year old morbidly obese (BMI 42.53 Kg/m2) woman with symptomatic severe aortic valve stenosis and anomalous coronary arteries. We successfully performed AVR with 27mm tissue valve using combined Konno aorto-ventriculoplasty and Manouguian posterior aortic root enlargement. The last mean gradient by follow-up transthoracic echocardiogram was 9 mmHg. At the time of reporting this case, it has been 12 months since her surgery and so far she is doing well clinically. In North America, cardiac surgeon should have well skilled with the root enlargement procedures which may be helpful at the time of AVR for young obese women with small aortic root. Combined ARE techniques should be considered in the presence of major coronary anomalies.