

HOMOGRAFT REPLACEMENT OF AORTIC ROOT WITH REIMPLANTATION OF
CORONARY ARTERIES. M MODE AND 2 DIMENSIONAL STUDY OF LONG
TERM RESULTS

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M mode and 2 dimensional study were performed in thirteen patients, aged 22 to 51 years /male 13, female 2/ who had complete replacement of the aortic root with a valve homograft into which the coronary arteries were reimplanted. The main indication was the aortic valve and aortic root disease. There were 7 patients with Marfan's syndrome, 2 with atherosclerotic aneurysm, 3 with aortic stenosis and large poststenotic dilatation of the aorta. One patient had large congenital aneurysm of the right sinus of Valsalva with bicuspid aortic valve. Nine of the patients demonstrated dissecting aneurysm of the ascending aorta.

Echocardiography was a useful noninvasive method in preoperative diagnosis and in evaluation of homograft function. The cross sectional method shows superiority over M mode providing the spatial orientation of intracardiac structures. Using this method correct diagnosis of dissecting aneurysm was made in 7 of nine. In 2 with enormous enlarged aorta, the dissection could not be clearly identified by echocardiography. Preoperatively aortic root inner diameter ranged from 42 mm to 80 mm. Echocardiography /M mode and 2 dimensional study/ demonstrated adequate function of implanted homograft in 13 cases. Slender cusp echo was seen, aortic root inner diameter ranged from 28 to 32 mm. All echocardiograms demonstrated thickening of the aortic wall depending on the wrapped ascending aortic homograft by the patient aneurysmal wall.