

#### 43 Long term results of annuloplasty for mitral regurgitation

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A series of 50 patients submitted to simple annuloplasty, without prosthetic rings, for mitral regurgitation (MR), from 1974 to 1984 was evaluated at late follow-up (min=5, max=15, m=8.4 years). Age range: 3.3 to 51 (m=26.7) years. Female sex=31, male=19. Etiology: rheumatic=84%, congenital=8%, mixed=8%. Pre-op. functional class (NYHA): II=4%, III=52%, IV=44%.

Late mortality was 16% (8 cases): sudden (1), MR after acute carditis (1), late valve failure (1), endocarditis (2), myocardial failure (2), unknown (1).

Residual late systolic murmur was present in 56% (28 cases), usually mild, and 24% (12) were reoperated at 1 to 10 (m=5.8) years p.o. Causes of reoperation: endocarditis, stenosis after carditis, aortic prosthesis failure and leaflet retraction (late MR).

At late evaluation, 82% were in class I or II, 12% in III and 6% in IV. Actuarial survival rate was 85±6% at 7 years and 76±7% at 15 years. Survival without reoperation was 71±7% at 7 years and 45±8% at 15 years p.o.

Simple mitral annuloplasty for MR in a young population, predominantly of female sex seems to be an efficient procedure to be considered as the preferential alternative in selected cases.

#### 44 Therapy of post-transplantation tricuspid-valve insufficiency through annulus stabilisation

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Temporary right-heart insufficiency following orthotopic cardiac transplantation (Htx) is not seldom.

Tricuspid insufficiency (TI) is even in late follow-up not a rare complication. Htx has been carried out in Hamburg throughout the years till the end of 1989.

Out of the 25 patients still alive, only 5 have not developed TI. Ten patients have developed TI of grade II or more.

The type of myocardial protection, periods of ischemia or parameters of the donor do not play any role in the development of this insufficiency. The underlying factor in this development of postoperative insufficiency is possibly the shift in the axis of the plane of the tricuspid valve.

To avoid this complication the tricuspid annulus was stabilised with the Duran ring during the process of the transplantation in our last 5 patients.

None of these patients developed TI, even in the late follow-up phase. In view of the fact that the implantation of Duran ring is an easy and a less time-consuming procedure, we urgently recommend this method as a measure to prevent post-transplantation tricuspid insufficiency.

#### 45 Surgical treatment of acute aortic dissection with ringed intraluminal graft

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During the past 14 years, 135 patients with aortic dissection were treated medically and/or surgically at Tokai University Hospital. Ninety-eight dissections were categorized as acute (less than 2 weeks of onset) and 37 were chronic. Fifty-four dissections originated in the ascending aorta (DeBakey type 1, 2), and 81 involved the descending aorta (type 3).

Until 1983 when we preferred antihypertensive treatment, the hospital mortality of acute type 1 dissections with medical treatment was 70% (7/10). The high mortality in early hours after the onset of aortic dissection was mainly due to cardiac tamponade, cerebral branch obstruction or coronary occlusion.

After clinical application of the ringed intraluminal graft (RIG) vascular prostheses in 1984, emergent surgical procedure under cardiopulmonary bypass was performed at first in all cases of the acute type 1, 2 dissections in which the site of entry and the active residual channel could be confirmed by cineangiography or CT scanning.

Twenty of 25 acute type 1, 2 dissections underwent RIG operation and the operative mortality decreased to 25% (5/20). The result of surgical treatment has improved significantly compared with that of the early period before the adoption of RIG operation.

Now, we are extending the indication for surgical treatment with RIG in the cases of acute type 3 dissection, too.

#### 46 Percutaneous transluminal retriever of foreign body intrapulmonary artery

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There were eighteen cases suffering from intravascular foreign body in past 10 years. They were silicone catheter of IVH except only one case with atrio-cerebral ventricular shunt catheter. There were located in the superior vena cava or right atrium in fourteen cases and in the pulmonary artery in the four cases.

Foreign body was removed by way of the right femoral vein puncture approach. The shunt catheter without X-ray positive marker except only 1 cm of the top of it which was located in the right pulmonary artery, was involved and pulled out into the right atrium by the pigtail type left ventricular angiography catheter and removed by the biliary stone removal basket forceps. The other foreign bodies which were located in the main pulmonary artery, were removed by hand-made loop snare in one case and by the cardiac biopsy forceps in two cases.

Removal of the foreign body intrapulmonary artery by percutaneous transluminal method is difficult concerning to snare them. By using many kinds of catheters and for-