PERCUTANEOUS BALLOON VALVULOPLASTY FOR CONGENITAL PULMONARY STENOSIS IN ADULTS

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Congenital pulmonary stenosis. 14 patients were asymptomatic with established method in treating children with significant pulmonary stenosis. (1989 M32

2 patients who had an associated membranous ventricular septal defect, the mean transpulmonary valve gradient was 50.7 mmHg. 12 patients (7 male, 12 female; mean age 27.1 years) had undergone surgery for tetralogy of Fallot. Full cardiac catheterisation in 29 cases. The mean right ventricular/systemic pressure ratio was 36% (s.d. 9%, range 23-50). During followup, 3 patients had a transient ischaemic attack, 2 patients had documented ventricular tachycardia which was successfully treated with sotalol (repeat 24 hour Holter only showed extrasystoles), but there were no cases of sudden death in our series. After a mean followup of over 23 years in our series, the prognosis appeared to be good in many patients with surgically-corrected tetralogy of Fallot. We suggest that concerns about long-term haemodynamic deterioration or malignant cardiac arrhythmia may be unjustified, although careful supervision is necessary.

LONG-TERM FOLLOWUP FOLLOWING SURGICAL CORRECTION OF TETRALOGY OF FALLOT

Following surgical correction of tetralogy of Fallot, there remain concerns over the long-term haemodynamic status and the presence of malignant cardiac arrhythmias causing sudden deaths. To investigate this further, we studied 34 adult patients with tetralogy of Fallot (19 male, 15 female; mean age at followup 31.8 years, s.d. 6.8, range 18-47 years) in whom surgery for tetralogy of Fallot was performed. Full surgical correction was performed at a mean age of 8.6 years (s.d. 6.8, range 1-27 years), although 5 patients had previous partial correction. After a mean follow-up of 23.9 years (s.d. 5.1, range 11-35 years), patients were studied with resting ECG, 24 hour Holter monitoring, echocardiography and cardiac catheterisation. At their last followup none of the patients were symptomatic, although 4 patients were taking antiarrhythmic agents (sotalol, amiodarone) and 2 were on warfarin. All but one of the patients had a right bundle branch block pattern on their ECG, with 2 patients in atrial fibrillation. 24 hour Holter monitoring confirmed atrial fibrillation in 2 patients (paroxysmal in one), and sinus rhythm in the remainder; the only rhythm disturbances were extrasystoles and paroxysmal supraventricular tachycardia in 2. Echocardiography demonstrated dilated right heart chambers in 21 patients, impaired left ventricular systolic function in 2 patients and evidence of a mild right ventricular outflow tract gradient in 3 patients. Cardiac catheterisation in 25 patients demonstrated a mean right atrial pressure of 5.5 mmHg (s.d. 2.5), right ventricular systolic pressure of 36.0 mmHg (8.4), pulmonary arterial systolic pressure of 24.7 mmHg (5.4), pulmonary arterial diastolic pressure of 7.3 mmHg (2.7); 8 patients had evidence of mild pulmonary regurgitation, whilst a patent foramen ovale was found in 2 patients and a small ventricular septal defect in 2 cases. The mean right ventricular/systemic pressure ratio was 36%

INCREASED QT DISPERSION DURING ISCHAEMIA IS UNAFFECTED BY β-ADRENOCEPTOR ANTAGONISTS

Recent studies suggest that myocardial ischaemia results in increased dispersion of ventricular repolarisation, but whether this is a direct cellular effect or receptor-mediated is unknown. β-blockers attenuate the effects of ischaemia and decrease arrhythmia risk but mechanisms are uncertain. The purpose of this investigation was to study the influence of ischaemia on a measure of repolarisation inhomogeneity, QT dispersion (QTd), defined as the difference between the maximum and minimum QT interval on the surface electrocardiogram, and examine contributing factors. Three groups were studied: 34 patients with coronary artery disease who had no overt ischaemia during atrial pacing (CAD); 22 patients with CAD who developed ischaemia (CAD/isch); and 19 patients with normal coronary arteries (NCA). Male and male/female ratio was not significantly different between groups. Other potential influences e.g. LV function, previous myocardial infarction, extent of CAD, drug therapy etc. were also examined. Patients taking β- adrenoceptor antagonists were equally distributed between the three groups. QTd (mean ± SD) was