

mitral pressure half-time immediately after percutaneous mitral valvotomy-Dependence on transmitral gradient and left atrial and ventricular compliance. *Circulation* 1988;78:980-93.

25 Chiang CW, Cherng WG, Chang FJ, Lin FC, Fan BR, Kuo CT, Lee YS. Effect of heart rate on pressure half-time in patients with mitral stenosis. *Chang Keng I Hsueh* 1992;15:72-7.

Comment

Chiang *et al* studied 500 consecutive patients with clinically important mitral stenosis to determine whether or not there are significant differences between the sexes in some of the echocardiographic variables commonly used in the clinical evaluation of patients with valvar heart disease. The data are of interest, if only because such an extensive characterisation of severe rheumatic mitral valve disease could no longer be undertaken in the western world—where the incidence of rheumatic heart disease has fallen and new cases are more likely to be detected at an earlier stage of the disease process.

Possible gender differences in the presentation and management of coronary artery disease have aroused considerable interest in recent years. Chiang *et al* suggest that gender differences extend to the manifestations of rheumatic mitral stenosis and that female patients had a higher prevalence and severity of tricuspid regurgitation although male patients (probably) had more severe mitral stenosis. They suggest that the pulmonary vascular response to mitral stenosis is greater in female patients, perhaps because the vascular reactivity of the pulmonary vascular bed is increased.

Whether these findings indicate a real gen-

der difference or not is uncertain. The results suggest that mitral stenosis was more severe in males, but only just—mitral valve area estimated by Doppler echocardiography (pressure half-time method) was slightly less in males and the echocardiographic score was higher. This score, however, is a purely descriptive and subjective assessment. The mitral valve area measured by planimetry, the forward velocity across the valve, the pressure gradient, and left atrial diameter were the same in both sexes. The difference in peak tricuspid regurgitation velocity between the sexes (0.3 m/s) is within the limits of the error of measurement of the technique. Consequently, the higher pressure gradient across the tricuspid valve in female patients (41 *v* 36 mm Hg) may well have been overinterpreted. However, Chiang *et al* point out that if mitral valve area was corrected for body size, the gender difference in valve area would be even greater. There are examples where vasomotor tone of certain vascular beds is greater in female patients. Whether or not the data presented here are part of the same phenomenon is open to interpretation.

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