Correspondence

Mitral valve prolapse and coronary artery spasm

Sir,
I read with interest the article on Prinzmetal’s angina and coronary artery spasm by Huckell and coworkers (Br Heart J 1981; 45: 649–55). The authors mentioned the association of mitral valve prolapse in eight of their 18 patients with Prinzmetal’s angina, and wondered whether this finding was causative or coincidental, or whether patients with mitral prolapse were more prone to develop coronary artery spasm. That there is indeed a causal relation between mitral valve prolapse and coronary artery disease with or without spasm has been fairly well established.1-3 Mitral valve prolapse, on one hand may result from coronary artery disease,1 but on the other hand may also be responsible for inducing coronary artery spasm.2 Mitral valve prolapse, therefore, may be either secondary or primary or both.3

I found that secondary mitral valve prolapse accompanying coronary artery disease has not only a different clinical auscultatory presentation1 but a different angiographic appearance from primary mitral valve prolapse.4 On a left ventriculogram in the 30 degree right anterior oblique projection the mitral valve in primary mitral valve prolapse has the appearance of a “bird’s beak” because of the billowing of the redundant and voluminous mitral leaflets. In secondary mitral valve prolapse caused by coronary artery disease, the mitral valve on left ventriculography in the same projection has the appearance of a “nipple” because of the uneven tethering of a structurally normal mitral valve by the dysfunctional papillary muscles. This angiographic sign was present in 90% of the cases I studied.4

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References