Correspondence

Transluminal angioplasty of a stenosis of an internal mammary artery graft

Sir,
In a recent paper (1986;56:473-5) Crean et al reported successful dilatation of the anastomotic stricture of an internal mammary artery graft. They stated that "early and late stenoses develop with a similar aetiology to those in vein grafts". This is not the conclusion of the study they quote.1 On page 255 of the cited article it says "Failure of mammary grafts, early or late, was so infrequent that determinants of stenosis or occlusion could not be identified".

We would also like to point out that several recent reports suggest that an early anastomotic stricture is not due to atherosclerosis but is a surgical complication of suture technique.2-4

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References


Long term improvement in global left ventricular function after early thrombolytic treatment in acute myocardial infarction

Sir,
We were interested to read the report of long term improvement in global left ventricular function after early thrombolytic treatment in acute myocardial infarction by Res et al (1986;56:414–21). They noted that the improvement in left ventricular ejection fraction (9%) after thrombolysis was greater in patients who had sustained an anterior infarction than in those with inferior infarctions. They claimed then this was due to photon attenuation. Because this difference between anterior and inferior infarction has been reported by other groups including ourselves1 it is worth examining the question of photon attenuation more closely.

Res et al used the theoretical calculations of Yeh and Yeh2 as a basis for their statement; however Yeh and Yeh examined why the ejection fraction measured by radioisotope methods gave a lower value
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than that measured by contrast ventriculography. The larger the heart the greater the photon attenuation and events in the posterior wall are subject to greater attenuation than events in the anterior wall. Nevertheless, the overall effect on the calculation of ejection fraction was small (<5%) and Yeh and Yeh did not assess the influence of abnormal wall movement.

Schneider et al examined the effects of regional hypokinesis in heart model studies. They concluded that with anterior hypokinesis the ejection fraction was underestimated but with posterior hypokinesis ejection fraction was overestimated. They suggested that the effects of regional hypokinesis on ejection fraction could be corrected by considering differential count attenuation but they cautioned that their heart model was a worst case example, since anterior and inferior hypokinesis do not occur in a strict anterior or posterior projection. In the heart model the effects were greatest when left ventricular volume was large and ejection fraction was low. This would not be the case in inferior infarction.

Knowledge of data from contrast ventriculography means that Res et al could examine this point more precisely by presenting the correlation between the contrast and radionuclide ventriculograms.

Res et al raise an important issue and their explanation may indeed be correct. The radionuclide
method may fail to measure an improvement in ventricular function after streptokinase treatment if successful treatment reduces posterior wall hypokinesis resulting in a smaller overestimation of ejection fraction. There are important implications for other studies that use radionuclide data and this hypothesis deserves close examination.

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References