Scrotal complication of myocardial infarction

A case report in the *Journal of the Royal Society of Medicine* describes an unusual complication of management of myocardial infarction (MI), which provides a cautionary tale.[1] A 41-year-old man with an acute MI underwent percutaneous transfemoral coronary angiography (PTCA) and stent insertion. The protocol for this procedure specifies that the patient should receive an antiplatelet agent, and in this case the patient was given abciximab 9 ml intravenously, followed by heparin.

The patient complained of left testicular pain about 12 hours later. On examination, the left testis was swollen, hard and very tender. It was also riding high in the scrotal sac. The diagnosis was testicular torsion, and surgery was suggested. The patient's condition, however, precluded surgery. A Doppler ultrasound scan was performed, which revealed that both testes had a good blood supply but a left intratesticular haemorrhage was found. The patient was treated conservatively, and he recovered well over the next 48 hours.

Bleeding complications after administration of abciximab are especially likely when other anticoagulants are given concomitantly. This appears to be the first case reporting intratesticular haemorrhage in association with abciximab. The authors state, 'When acute scrotum develops during management of MI, intratesticular haemorrhage has to be considered'.

Homocysteine and risk for congestive heart failure

While it has been documented that elevated plasma homocysteine is associated with increased risk of vascular disease, it has been unclear whether it is a risk factor for congestive heart failure (CHF). A study was recently conducted[2] which involved 2 491 adults (mean age 72 years, 1 547 women) who participated in the Framingham heart study during the 1979 - 1982 and 1986 - 1990 examinations, and were free of CHF and prior MI (recognised or unrecognised) at baseline.

They were followed up for 8 years assessing a first episode of CHF as the main outcome measure. During the follow-up, 156 subjects developed CHF. Plasma homocysteine levels higher than the sex-specific median value were associated with an adjusted hazards ratio for heart failure of 1.93 in women (95% CI 1.19 - 3.14) and 1.84 in men (95% CI 1.06 - 3.17). The association was found to be more continuous in women than in men. A doubling of CHF risk in women in the second quartile with homocysteine levels which hitherto were regarded as being normal, was described as 'provocative'. The researchers concluded that an increased homocysteine level independently predicts risk for the development of CHF in adults without prior MI. Further research is warranted to confirm these findings, and to determine whether lowering elevated homocysteine levels through vitamin therapy with folic acid alone or in combination with pyridoxine hydrochloride and cyanocobalamin may reduce the risk of CHF.

Cyclophosphamide in acute steroid refractory inflammatory bowel disease

Inflammatory bowel disease (IBD), such as Crohn's disease or ulcerative colitis, is characterised by recurrent acute attacks which require intensive medical care, usually high-dose corticosteroids. However, 30 - 60% of patients develop steroid refractory disease. Some immunosuppressive agents such as azathioprine, 6-mercaptopurine and cyclosporin are effective, but a substantial number of patients are refractory even to combined use with glucocorticoids.

Based on its well-known efficacy in systemic vasculitis, intravenous cyclophosphamide pulse therapy was used in refractory IBD patients to evaluate both its efficacy and safety.

Between December 1998 and May 2001, a prospective uncontrolled pilot study[3] was conducted in which 7 patients (N = 5: Crohn's disease and N = 2: indeterminate colitis) with severe refractory IBD received 4 - 6 cycles of monthly treatments with intravenous cyclophosphamide (750 mg).

All patients improved after two intravenous pulses of cyclophosphamide and six of the 7 patients achieved complete remission. One patient with Crohn's disease of the small and large bowel showed an impressive clinical response but did not enter into remission. It was possible in all responders to taper their corticosteroids to low doses. The remission was maintained in all patients for a median duration of 18 months. One patient required a second course of pulsed treatments. The drug was well tolerated except for two episodes of *Candida* oesophagitis.

Based on this pilot study, cyclophosphamide may be useful to bridge the gap before the onset of the effect of azathioprine or 6-mercaptopurine. Furthermore, the authors believe that cyclophosphamide may reduce the need for high-dose steroids more rapidly in the initial treatment phase, and therefore minimise the well-known side-effects. This study shows that pulse therapy with cyclophosphamide has clinical potential in a subgroup of patients with severe steroid-resistant IBD. Controlled studies to further evaluate the clinical efficacy of this regimen are therefore warranted.

References
1. Hamid R *et al. J Roy Soc Med* 2003; **96**: 80.
2. Ramachandran S V *et al. JAMA* 2003; **289**: 1251-1257.
3. Stallmach A *et al. Gut* 2003; **52**: 377-382.