Coronary heart disease trends in France and elsewhere

In this issue the MONICA (monitoring trends and determinants in cardiovascular disease) team from Toulouse reports on myocardial infarction trends in south west France between 1985 and 1993.1,2 There were 3263 events in men and there appeared to be an annual decrease of around 2% in both event rate and mortality rates. Twenty eight day case fatality fell by about 3% per year for first events and by 6% for recurrent events. The confidence intervals, however, are very wide around these estimates. The authors have concluded that the decrease in myocardial infarction mortality was predominantly attributable to reduction in case fatality and, by inference, improvements in acute management. It should be noted that there were few events in women.3

The Toulouse report updates an earlier description of the same population for the period 1985–90,4 and provides local detail as part of the much larger MONICA project recently reported elsewhere.5 Curiously, the attack rates and case fatality rates in the present report are quite different from those in the earlier one.6 In the overall MONICA analysis, 10 year trends in 37 populations highlighted mortality declines in the majority and substantial declines in 12 populations.7 In men, the annual mean change in coronary event rates averaged 4.3% compared with only 2.1% reduction in case fatality, an overall pattern very different from the Toulouse experience. Another curiosity, however, is that the main MONICA report seems to show the pattern of change in Toulouse in keeping with the overall findings and, therefore, not as in the present report.1,8 Having noted the substantial contributions from changes in survival, the MONICA investigators emphasised that “the major determinants of decline in CHD [coronary heart disease] mortality is whatever drives changing coronary event rates”.1

The Toulouse paper highlights five key issues: trends in event rates, trends in mortality, trends in case fatality, inferences about treatment effects (secondary prevention), and inferences about cardiovascular risk factors (primary prevention).9 Coronary heart disease mortality statistics are the epidemiological rock to which all other phenomena can be most safely tied.10 One of the great achievements of the MONICA programme has been the general validation of routine mortality statistics across the majority of the 21 countries. It is perhaps not surprising that two of the lowest coronary heart disease mortality rates are reported in Japan and in France where substantial numbers of coronary deaths are coded as something else.11 However, the general trends are clear. In the majority of industrialised countries coronary heart disease mortality has fallen by a third in the last two decades. Falls have been steeper in men and, in Britain at least, unequivocal government support.11 Undoubtedly, optimum treatment of acute myocardial infarction is of the utmost importance. The scourge of coronary heart disease continues to require a multifaceted attack.

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Descending thoracic aortic aneurysm in rheumatoid arthritis

A 55 year old normotensive male smoker with seropositive nodular erosive rheumatoid arthritis (rheumatoid factor 390, normal range 0–20 IU/ml), controlled on sulfasalazine and indometacin, had a thoracic aortic aneurysm detected on routine chest radiography. Computed tomography (CT), with spiral reconstruction, confirmed that this started immediately distal to the left subclavian artery and was 7 cm in diameter and 13 cm in length. Just above the diaphragm the aorta began to dilate again, and at the level of the renal hilum was 4.5 cm in diameter. The thoracic aneurysm was resected and replaced with a 32 mm knitted polyester graft impregnated with gelatin.

Histology of the resected aorta (haematoxylin and eosin stain, original magnification ×100) showed features consistent with rheumatoid vasculitis with a panmural aortitis and an inflammatory cell infiltrate comprising mainly plasma cells and lymphocytes. There was distortion and thinning of the elastic media and adventitial fibrosis. The vasa vasorum showed a dense perivascular cuff of lymphocytes with Russell bodies, which represent deposits of immune complexes (arrowed).

Vasculitis occurs in fewer than 1% of patients with rheumatoid arthritis and usually only in those with severe deforming rheumatoid arthritis and high titres of rheumatoid factor. Large vessel involvement with aortitis occurs in 5% of patients with rheumatoid vasculitis. Aneurysm formation secondary to rheumatoid vasculitis is extremely rare and then usually affects the aortic root and ascending aorta.