

Speaker's corner

MI myopia: finding the focus on angina

MI IS EASY

Why does the gaze of "coronary heart disease" epidemiology focus on fatal or non-fatal myocardial infarction (MI)? One reason is that it is easy to study. Cardiologists recognise a number of acute coronary syndromes, of which MI is one, which are often clinically dramatic and precipitate hospital admission. Once in hospital, most patients are investigated with biochemical markers of myocardial necrosis and electrocardiography. Based on the results of these tests and the history, MI can be defined according to internationally agreed case definitions.

ANGINA IS A HARD END POINT!

The same cannot be said of angina. Angina is hard to study. People may experience angina chronically over years and never be admitted to hospital or even present to their primary care practitioner. Having consulted a doctor the extent of investigation is highly variable, and largely outside the control of researchers. Epidemiologists have generally collected only resting electrocardiograms, although this is changing with developments in non-invasive imaging. There are no internationally agreed definitions of (chronic stable) angina that incorporate test abnormalities. Some investigators take pride in their ability to exclude "soft" cases of angina and concentrate on the "real" end point of MI—innumerable studies about "coronary heart disease" make no mention of angina at all. Yet "coronary heart disease" is not one phenotype; conflating coronary heart disease with MI is short sighted.

ANGINA IS BECOMING MORE IMPORTANT: FOUR QUESTIONS

So what might a corrective lens achieve? A focus on four questions. Firstly, why has the incidence and prevalence of angina remained high over the past few decades, in contrast

with the incidence of MI, which has fallen in western countries. Indeed based on primary care consultations in England, the prevalence of angina may even be increasing. To what extent does the aetiology of angina differ from that of MI? Secondly, how best do we describe the burden of morbidity in a person with angina (for example, repeated spells over a prolonged period) compared with MI (which may be an isolated event, after which there are no symptoms)? Thirdly, what is the prognosis of angina in terms of functional status and survival compared with that of MI? There are enough studies now to question the notion that angina is a benign condition.

Fourthly, how can we reconcile the angina that epidemiologists report with the angina that clinicians diagnose? Currently there is a dislocation of the lens through which these different groups view angina. How can we measure the "prevalence of indications" for further investigation, medical or invasive management? Questionnaires developed in men 40 years ago that make no mention of relief of pain by nitrates, nor precipitation by emotion, lack face validity. The (common) situation in epidemiological studies in which women are asked to mark the location of their pain on a diagram of a male torso is, frankly, bizarre. In general populations, little is known of the distribution of the functional severity of angina (for example, using the Canadian Cardiovascular Society Class), nor of the relation between chronic stable angina and unstable angina.

If epidemiological inquiry has viewed coronary heart disease, somewhat short sightedly, through MI tinted spectacles, it is worth extending the gaze to two coronary heart disease morbidities: MI and angina. Mine's a pair of bifocals!

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APHORISM OF THE MONTH

The world is a fast flowing river

One of the powerful aphorisms in giving shape to the New Public Health in the 1980s was the notion that the world was a fast flowing river, with healthcare workers standing on the banks with white water swirling below. Every so often a drowning person would be swept down and our workers/life savers would jump in, pull them out and resuscitate them. They were so busy jumping, pulling out, and resuscitating, that they had no time to walk up stream and see who was pushing everybody in.

This story resonates with the every day claims of busy clinicians to be too busy to focus on prevention. At the same time, it raises questions about the policies that might keep people away from the river in the first place, environmental measures of fences, warning notices, etc, to keep people from falling or jumping in, lifestyle measures such as swimming lessons and the appropriate balance between early assistance from life guards or later support from emergency ambulances and casualty departments. Without a balanced approach, all the resources could be focused down stream.

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