In this number

The confused Milky Way

In this number we publish a research report from A R Ness, G Davey Smith and C Hart about the relation of milk, coronary heart diseases and mortality. The conclusion of the authors after following up a cohort for 20 years is: "we found no evidence that milk consumption was associated with increased risk of coronary death or death from all causes" furthermore, they add: "drinkers were healthier in several respects". In his linked editorial Peter Elwood essentially supports the authors’ claims, stating that the “notion” that regular consumption of milk is hazardous to health is not supported by the current epidemiological evidence.

For us, the key idea on commenting on these papers is confusion. The history is not new, in many areas of medical research, but especially in the field of nutrition, alleged risk factors rise and fall continuously adding confusion to policy makers, practitioners, and above all to the public. Coronary heart diseases seem especially prone to this risk factor inflation with nearly 300 ones described to date. Despite this lack of a coherent body of evidence many institutions have increased in recent years strong recommendations for reducing whole milk intake. These have led in food rich countries to an alternative increase in low fat milk products, but also these recommendations have led to a reduction in the use of whole milk in developing countries. FAO data on milk supply per person for South America showed a steady increase since the first data were available (1961) to a peak in 1981, then the trend is reversed to a constant decrease, data on the last available year (1999) show exactly the same figures as in 1970. Milk is an excellent and cheap source of high biological value proteins, calcium and vitamin D, and additionally is widely accepted. Perhaps, domestic animal milk, is the only food item shared in their diet by all the ethnic groups all over the world. Information on risk factors do have side effects, especially if the degree of scientific evidence is weak and the authors decline to state clearly which wider policy implications their findings have, as usually occurs in health sciences journals. While preparing these lines, we have shared with one of our students the content of both the paper by Ness et al and the editorial by Elwood and asked her to summarise her impressions in just one sentence. Her answer was: “epidemiology is useless”.

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The JECH gallery

The first, worst, and most successful clinical trial of Archie Cochrane

Archie Cochrane will be remembered for many things, but perhaps more than anything for his enthusiastic promotion of the randomised controlled trial in clinical research, and for his call for periodic overviews of such trials. Yet Archie himself never conducted a randomised controlled trial!

In his paper “Sickness in Salonica: my first, worst, and most successful clinical trial” Archie described a trial of yeast in the reduction of starvation oedema in 1941. His experimental subjects were 40 prisoners of war, all of whom were “emaciated above the waist and had pitting oedema to above the knees”. These men were allocated alternately to two huts. Each of the men in one hut received two spoonfuls of yeast daily. Men in the other hut received a tablet of vitamin C daily. The outcome measure was the number of buckets of urine carried out of each hut each day. By the fourth day there was a clear difference in favour of the hut in which the men had received yeast. In his paper Archie admits that this was not a good trial. The wrong hypothesis had been tested, the numbers were too small, the time too short and the outcome measurement was crude. Although Archie states “it could be argued that the trial was randomised”, it was not. Nevertheless, as the title of the paper indicates, the trial was successful!

I persuaded Archie to give a talk about this trial at a dinner I had arranged for speakers and others involved in a conference on byssinosis. He was most reluctant, saying that he had never been able to come to terms with his experiences in the prisoner of war camp. However, he agreed. As he talked about the men and the conditions under which they had had to live in the camp, Archie faltered, and nearly broke down emotionally. Afterwards, he thanked me, saying that talking about the trial had been very helpful.

Very shortly after this, Archie wrote the paper and sent it to the BMJ.

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