

Editor's comment

An ancient disease



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Much of the current controversy around diet and health is based on the idea that atherosclerotic disease is a modern disease of lifestyle. We eat too much fat, smoke and drink too much and take too little exercise – and our arteries clog up and we die of cardiovascular disease. In fact, in modern times, we tend to die of cardiovascular disease in extreme old age – something that many proponents of a 'healthy' lifestyle conveniently ignore. Now, research into the prevalence of atherosclerosis in ancient times suggests that it is far from a modern disease, and that it appears to be a marker of old age.^[1]

Atherosclerosis is known in Egyptian mummies, already suggesting that the disease was present in ancient times. In this study Randall Thompson and his colleagues also looked further afield at cultures from four different geographical regions or populations spanning more than 4 000 years. All these cultures lived in dry regions, where bodies were easily preserved through mummification. The individuals were from ancient Egypt, ancient Peru, the Ancestral Puebloans of southwest America and the Unangan of the Aluetian Islands.

The ancient Egyptians and Peruvians were farmers, with domesticated animals. The ancestral Puebloans were forager-farmers and the Unangans were pure hunter-gatherers. None of the cultures is known to have been

vegetarian and all are likely to have been active, without animal or vehicle transport.

Climate, and so diet, was highly varied. Fish and game were found in all the cultures, but protein sources varied from domesticated cattle among the Egyptians to an almost entirely marine diet among the Unangans. Ancient Peruvians would have had a diet rich in corn, potato, sweet potato, manioc, peanuts, beans, bananas and hot pepper. Protein sources would have been guinea pigs and ducks (domesticated) and game. At the other end of the extreme, the Unangan's ate mainly seals, sea lions, otters, whale, fish, sea urchins and shellfish and birds and their eggs. They were entirely hunter-gatherers. Fire for cooking and warmth was known in all the cultures.

Infectious diseases were common and a major cause of death, and life expectancy was short by modern standards.

Atherosclerosis was found in all four geographical populations – present in the aorta, iliac or femoral arteries, popliteal or tibial arteries, as well as the carotids and coronary arteries. Age at the time of death was positively correlated to the presence and extent of atherosclerosis (mean age 43 in those with atherosclerosis and 32 for those without). Mean age of death rose to 44 in those with atherosclerosis in 3 to 5 beds.

In our modern world we have a whole industry (pharmaceutical) and entire branches of medicine devoted to 'preventing' atherosclerotic disease and then treating it when it inevitably appears and continuing to treat it well into advanced old age. People in their 80s and 90s are routinely prescribed antihypertensives, statins and a host of other drugs associated with all the chronic 'diseases of lifestyle' that are almost certainly a normal part of the ageing process. There are already many who question the wisdom of this approach. In my first year in medical school one of my most influential lecturers argued that much of what we call disease is in fact a natural part of ageing. The massive reduction in infectious diseases and massively increased survival in childhood have combined to increase life expectancy to the life spans now commonly seen in the developed world. What has not improved markedly for most is quality of life in old age and, if anything, the medicalisation of old age is contributing to this poor quality of life as a result of drug side-effects and a poor understanding of the needs of the aged as we 'strive officiously to keep alive'.

This is an important study, showing that this particular 'chronic disease', while undoubtedly a form of pathology, is not as a result of poor lifestyle, but simply a result of living into old age.

1. Thompson RC, et al. Lancet. [[http://dx.doi.org/10.1016/S0140-6736\(13\)60598-X](http://dx.doi.org/10.1016/S0140-6736(13)60598-X)]

CME is published monthly by the South African Medical Association
Health and Medical Publishing Group,

Private Bag X1, Pinelands, 7430 (Incorporated Association not for gain. Reg. No. 05/00136/08). Correspondence for CME should be addressed to the Editor at the above address.

Tel. (021) 681-7200 E-mail: publishing@hmpg.co.za

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