

VIEWS FROM THE PAST

Dr Black's favourite disease

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According to the narrative of Fielding's, *The History of Tom Jones*: "To say the truth, every physician, almost, hath his favourite disease, to which he ascribes all the victories obtained over human nature."¹ Dr Black's favourite disease was clearly angina pectoris because, in his book, *Clinical and Pathological Reports*, published in 1819,² of the 18 dissections he describes, pride of place is given to four cases of angina pectoris.

Samuel Black was born in 1764, almost certainly in County Down. He attended Edinburgh University from 1782 until 1786, graduating MD. He entered clinical practice in Newry, County Down in 1792 and published his first case of angina pectoris in 1795. In this journal in 1983, Proudfit wrote of Dr Black's "remarkable vision" in forecasting the contribution of chemistry to cardiology and that there was "no doubt that his observations were original".³ In the preface to his book, Samuel Black states that "As far as . . . professors have exerted their ingenuity in constructing brilliant theories or in dressing up fanciful speculations, their efforts have been thrown away. But so far as they have employed their talents in the observation, collection and arrangement of useful or important facts, whether these facts relate to the history of health or of disease, or to the powers of remedies, to this extent they have rendered a real and important service to the science they cultivate". This sums up Dr Black's approach to medicine. Take also his brilliant clinical description of angina which "resembled the sensation he would have, if the skin were off his throat, and a very cold vapour rushing down it. He had, very frequently, a severe pain above the left scapular" or "a sensation which the patient compared to that which would be excited by a lump of hard bread, not sufficiently chewed, sticking in the lower part of the oesophagus". Another patient, a Reverend gentleman, set out "to baffle the paroxysm" (tachycardia) by "concentrating his attention on some interesting kind of reading", and also "found relief from taking a moderately full inspiration, retaining the breath and keeping the chest for a time in that state of expansion"—a description of the Valsalva manoeuvre, unmatched for its verbal economy.

Consider also his pathological descriptions. "The aorta appeared somewhat dilated. The

valves were sound. On examining the coronary arteries, I found, with a mixture of satisfaction and surprise, that they were completely ossified through their whole extent. I cut them out, preserved them and they are still in my possession. The more remarkable of the two, immediately after its origin, divides into two capital branches, the larger of which is a solid bone; the other, though apparently somewhat pervious, yet extremely osseous through its whole extent: and even the small ramifications from these capital branches were completely indurated and inflexible. The abdominal viscera were sound." Perforce of such painstaking observation, like that of the present Editor of the *British Heart Journal*, Dr Black then went on to formulate aetiological hypotheses. It appeared to him "that the Physician who ascertains half a dozen of important facts, performs a more valuable, though a less splendid achievement, than he who invents a dazzling theory." Dr Black did truly help develop a dazzling theory—the ischaemic hypothesis of angina pectoris.

A most remarkable feature of Dr Black's work was that he adopted an epidemiological stance in asking how individuals who become ill differ from those who do not. Of course, Dr Black put it far more elegantly: "Is our knowledge of the remote causes of this disease such as to enable us to classify the *liable* and the *exempt*?" (table). Dr Black feared not, but continued "when we cannot arrive at truth in its perfect and satisfactory form, let us at least endeavour to make approximations towards it. I imagine the persons peculiarly liable are those who are of full and plethoric habits who

Susceptibility to angina pectoris **LIABLE**

The male sex
The better ranks of society
The psychologically stressed
Those with an ossific diathesis
Those with an accumulation of fat around the heart
Those with full and plethoric habits who live luxuriously
Those with insufficient exercise
The obese

 EXEMPT

The female sex
The poor
The laborious
Those who use strong exercise
The foot-soldier
The French

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St Patrick's Church, Newry, where Dr Samuel Black is buried. St Patrick's Church was first erected in 1573 and restored in 1866. Jonathan Swift is said to have preached in the church and immortalised it in his couplet:

"High Church, Low steeple,
Dirty streets and Proud people."

The "Dirty streets" refers to the fact that pigs roamed free in Newry at the time.⁵

live luxuriously, or at least very plentifully, and do not use a sufficient quantity of exercise. If there be, on the other hand, any persons possessing an exemption from the disease, total or partial, I think we shall be most likely to find them among the poor, the laborious, those who use strong exercise, the foot-soldier and the female sex." Similarly, he added "We have seen that the disease appears to be connected

with a plethoric state of the system and with obesity:—that the great majority of the subjects of it have belonged to better ranks of society, who were in the habit of sitting down every day to a plentiful table, in the pleasures of which they may have indulged to a greater extent than was suitable to the tendency of their constitution" (Dr Black recognised the genetic component of heart disease). For treatment, he thought the physician should "make himself master of the patient's constitution, of his habits and modes of living." He was "inclined to propose a regimen of the most abstemious kind, exclusive, in a great measure, of animal food and all fermented drink" but he admitted that "Experience, however, has taught me that it is in vain for men to begin such a system of living, unless they are endowed with a certain firmness and constancy of mind, such as are necessary to enable men to forego Sybaritic gratifications, and to prefer a prospective advantage to a present enjoyment." Dr Black well understood that "habits and modes of living" are resistant to change.

Dr Black also noticed the large disparity in heart disease between Ireland and France and "the meridional regions (Southern Europe)" and thought it might be due to "the French habits and modes of living, coinciding with the benignity of their climate and the peculiar character of their moral affections (psychological stress)." This conclusion he based on a weighing of the evidence of Baron Corvisart's failure to write⁴ "not one word of the disease that I have been endeavouring to explain and illustrate." Dr Black could "scarcely admit of such a supposition"—that is, that the great French physician might have "overlooked or neglected a disease of the heart so serious" if it "were of frequent occurrence."

Dr Black died in 1832 (fig). In April, 1993, a plaque was erected on Dr Black's former residence at Marcus Square, Newry, to commemorate a "pioneer cardiologist"—he was also an outstanding epidemiologist.

- 1 Fielding H. *The history of Tom Jones*. London: Penguin Popular Classics, 1994:24.
- 2 Black S. *Clinical and pathological reports*. Newry: Alex Wilkinson, 1819:1–47.
- 3 Proudfit WL. Origin of concept of ischaemic heart disease. *Br Heart J* 1983;50:209–12.
- 4 Corvisart JN. *Essai sur les maladies et les lésions organique du coeur et des gros vaisseaux*. Paris: Méquignon-Marvis, 1811.
- 5 Canavan T. *Frontier town: an illustrated history of Newry*. Belfast: Blackstaff Press, 1989:88.