THE PSYCHOPATHOLOGY OF ISCHAEMIC HEART DISEASE*

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THE mode of life of those who develop coronary thrombosis shows in a high proportion of cases a pattern of living that is ultimately injurious and often fatal. This paper deals with these lives in the round, and in it I discuss the significant deviations from wise and serene patterns of living that they show. The argument is made that it is this arrhythmic, self-destructive mode of life that initiates biochemical and pathological change in the blood and coronary-tree, and that these are often terminated by a final unacceptable emotional stress.

General practitioners know that the kind of life a man lives has a great deal to do with the types of illness he suffers from, and are not likely to consider this attempt to thread the known aetiological factors (hypercholesterolaemia, increased coagulability of the blood, over-smoking, over-eating, prestige-seeking, under-exercising etc.) into a way-of-life pattern is naïve and unscientific.

Historical

1. It is almost certain that the first literary description of a coronary thrombosis is to be found in the Bible, i Samuel xxv, which tells the story of Nabal (described as "churlish and evil"); his encounter with some of David's men and his death ten days after a heart attack. David intended to slay Nabal for his rudeness to his (David's) servants, and held his hand only because of the intercession of Abigail—Nabal's wife—who came to him with many presents. She returned home. Verses 36, 37 and 38:

36. And Abigail came to Nabal; and, behold, he held a feast in his house, like the feast of a king; and Nabal's heart was merry within him, for he was very drunken; wherefore she told him nothing, less or more, until the morning light.

37. But it came to pass in the morning, when the wine was gone out of Nabal, and his wife had told him these things, that his heart died within him, and he became as a stone.

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38. And it came to pass about ten days after, that the Lord smote Nabal, that he died.

One can feel over the centuries the intensity of wordless anguish, the destruction of the ego in this man, and feel sorry for him.

2. Coronary thrombosis was not very common in Osler's day, and clinical records tended to lump effort angina and infarction into one type of description. Some reflections of Osler in 1910 showed that he was very much aware of the importance of emotional stress factors in these conditions:

In a group of 20 medical men, every one of whom I knew personally, the outstanding feature was the incessant treadmill of practice; and yet if hard work—that 'badge of all our tribe' was alone responsible, would there not be a great many more cases? Every one of these men had an added factor—worry; in not a single case under 50 years of age was this feature absent. Listen to some of the comments which I jotted down of the circumstances connected with the onset of attacks; 'a man of great mental and bodily energy, working early and late in a practice, involved in speculations in land'; 'domestic infelicities'; 'worries in the Faculty of Medicine'; 'troubles with the trustees of his institution'; 'law suits'; 'domestic worries'. . . . At least six or seven men of the sixth decade were carrying loads light enough for the fifth but too much for a machine with an ever lessening reserve.

3. In Russia since the Revolution coronary thrombosis has become increasingly common among the upper echelons of the administrative and bureaucratic classes. Boris Pasternak puts some significant words into the mouth of his hero Dr Zhivago:

Nowadays there are more and more cases of small cardiac haemorrhages. They are not always fatal. Some people get over them. It's the common illness of our time. I think its causes are chiefly moral. The great majority of us are required to live a life of constant, systematic duplicity. Your health is bound to be affected if, day after day, you say the opposite of what you feel, if you grovel before what you dislike and rejoice at what brings you nothing but misfortune. Your nervous system isn't a fiction, it's a part of your physical body, and your soul exists in space and is inside you, like the teeth in your head. You can't keep violating it with impunity. I found it painful to listen to you, Nicky, when you told us how you were re-educated and grew up in jail. It was like listening to a circus horse describing how it broke itself in.

The inner world of some patients with coronary thrombosis

I was impressed by the similarity between my own ideas and those of Dr Kenneth Sanders, who read a paper on coronary thrombosis to the Royal Society of Medicine, in 1962. Some of these patients, he stated, have an 'internal world which has become a place of despair, fear and violence,' and he described eight cases where this was so. 'A great many people in this world have but one form of rhetoric for their profoundest experiences, namely to waste away and die' (Oliver Wendell Holmes).

Many think these are exaggerated statements and, even if true, to be unrelated to the occurrence of myocardiac infarction. I became convinced of the reality of this anguished inner life of the patient

as a prime factor in the production of coronary thrombosis during the three and a half years I spent in the cardiology department in the General Infirmary at Leeds, where in a little back room I listened to the personal story of some 70 patients in great detail—averaging about one hour for each patient.

I analysed 100 cases in all and found that in about three out of every five patients profound and lasting traumatic psychic factors were potent in the causation of this disease (MacKinnon 1957). Nothing I have heard or seen since has caused me to change my mind.

A patient will seldom disclose his inner life to his doctor in the ordinary hurry of general practice, and will often deny a stressful background on first enquiries. Naturally, a long listening session should only be done after the acute stage of the illness is over and when the ground has been carefully prepared.

Precipitating psychic factors in coronary thrombosis

There is general agreement, even among those doctors who discount the long term effect of psychic factors, that a variety of intense emotions may precipitate a myocardial infarction.

Fear. A series of electrocardiograms taken of healthy young patients two to three hours before emergency operations showed a very large number of coronary-type curves which became normal later on (Mainzer and Krause 1940).

Many studies have shown that emotions like rage, grief and despair increase the coagulability of the blood (Stoker 1952). In grief, despair and severe depression, the blood pressure also falls and this further increases the risk of thrombosis. These are probably the most important facts in the second of two Darby and Joan deaths. The will to live is greatly diminished, even if it has not been replaced by a downright will to die. Deaths by voodoo or 'ill-wishing' or 'anniversary' deaths are probably similar in mechanism. Other emotions, like rage or fright, raise the blood pressure and may initiate a small subendothelial haemorrhage, which is followed by surrounding thrombosis. Physical exertion can do the same thing if severe enough: pushing cars out of a ditch, shovelling snow, or lifting heavy stones in the garden, are all examples of this and are often accompanied by extreme anger and irritation. Gradually mounting emotional stress in the days and weeks before the attack have been noted by many observers. This is often denied by the patient but not by the spouse. Denial is a characteristic of these patients. They don't want to admit that the great 'I AM' has been affected by some commonplace stress or worry!

It is curious that whilst most physicians will admit the great

significance of intense emotion in precipitating coronary thrombosis, many will contest the view that ways of life that are arrhythmic, chaotic and full of internal stress, have no effect on our coronary arteries when maintained over a long period of time.

The psychosomatic statement

A synoptic account of the coronary personality as generally agreed by most authorities may be stated as follows:

He is usually a mesomorph in build—the thick-set muscular type. A characteristic of mesomorphs, shown by most coronaries, is a tendency when in trouble to attempt to resolve it by work—more and more hard work. "Hard-driving, goal-directed traits are common." "There is often an unrelenting drive, an intense desire for recognition, inability to delegate responsibility to others, compulsiveness about time, restlessness during leisure hours, and a sense of guilt during periods of relaxation." Excessive smoking, overeating and the failure to obtain adequate exercise are common in these patients, and generally regarded as by-products of psychological stress.

Most studies consider that the lethalness of a high fat diet in our Western Society is due to the 'catalytic' influence of stressful living. One study of young coronaries (i.e. under 40) showed that many had been working for 60 hours or more a week; 25 per cent had two jobs. Prolonged emotional stress is found present in all groups. "Gradually mounting emotional stress" is frequently precipitated by an event producing great anguish or grief, or a shattering of the patient's idea of himself as a masterful, dominating figure.

The 'anniversary reaction' is not uncommon: an attack occurring on the anniversary of the death of some dominating figure in the patient's life, e.g. a hated or admired father. A constant characteristic is the way these patients conceal, under the coronary mask, their uncertainties and their aggressions. They have no time for gentle and tender feelings, and no understanding of poetry, art and mysticism. No idling by the river bank. They often suffer from depressive illness, and their whole lives have been regarded as 'a pattern of self-destruction.' These victims of a lethal and self-traumatic mode of life often start life as members of an unhappy or deprived family. Cardiovascular disease is often present in parents or siblings.

A 'denial of the reality' of their illness is a finding all over the world. It is often quite difficult—apparently—to make them take their illnesses seriously. They are at the opposite pole from the cardiac neurotic who is frightened by extrasystoles and tachycardia, or even by his occasional sigh!

Recent studies suggest that coronary patients deal with their feelings of hostility and aggression in an abnormal and ultimately self-injurious manner. I have observed patients who have nourished old-fashioned hate to their bosoms for many years. The person

hated may suffer in some way or other but it is certain that the emotion of hatred is the most self-injurious and self-destructive of all the emotions.

Long-term psychic factors in aetiology

Physically, the potential coronary patient is usually overweight, eating and drinking too much and taking too little exercise. He is a mesomorph (i.e. muscular, stocky build) who smokes heavily (often more than 30 cigarettes a day). Blood cholesterol is sometimes raised. Hypertension is frequent. Some metabolic dyscrasias often occur and greatly worsen the prognosis: diabetes, gout, xanthelasma, zanthomata, etc.

It is curious to what an extent a patient's shape determines his destiny. The square, stocky mesomorph tends to resolve his troubles by work—more and more work. The linear ectomorph broods by himself and talks to God, whilst the rounded endomorph likes to find a friend or a barman and pours out all his troubles to him.

Facies. For three and a half years I had all the coronary patients who came to Dr J. R. H. Towers' outpatient clinic in the General Infirmary at Leeds photographed—full face and profile—and I concluded that in just over half of them the face showed clear evidence of the profound tension that had driven them most of their lives. It was a mature, authoritative face, watchful and guarded, suggesting much inward grief and anguish.

Excessive work. These patients often drive themselves very hard for many years. Studies of mortality figures of various occupations, usually considered hard working, like coal-mining, have tended to minimize this factor, because of over-concentration on a wide group. More detailed individual studies are needed.

Arrhythmic mode of life. "It's not what happens to us that is important, but *how* we take it." In a true sense most victims of modern stress are self-selected. To a man they all follow the individualist ethic. The ordinary British working man rather conspicuously opts out of the modern rat race, and he suffers much less than the professional and managerial classes from coronary disease. What features of modern life and living injure the coronary tree? Ischlondski indicated that what he termed an arrhythmic mode of life was the essential feature of modern life that was most injurious to the heart. On the physical plane this could be compared to driving a motor car at widely varying speeds. He considered this factor to operate at emotional levels also. 'The tyranny of the clock' is an obvious factor in this arrhythmic mode of life.

He pointed out the impressive fact that people who *did* live serene philosophic, i.e., rhythmic lives, like composers, musicians, mathe-

maticians, scholars, shepherds, all tend to live a great deal longer than busy general practitioners, or TV entertainers. A rhythmic mode of life is obviously easier on the body physiology than an arrhythmic one. A serene emotional life lasts longer than a tortured and highly emotional one. Constant tension and drive exact a price from our cardiovascular systems. This is rather obvious. As a *British Medical Journal* editorial commenting on the low incidence of coronary disease in members of the Seventh Day Adventist Church pointed out: "The benefits of religious observance are by no means restricted to the future life!"

What is the basic nature of the good, healthy, serene life? Arthur Guirdham answers this: "The fundamental denominator of health and happiness is a diminished awareness of one's own personality. Those lives which are more or less exclusively lived on the dedicated, submissive and mystical plane, who in fact are devoted to the annihilation of the self, are strikingly immune from disease." Submission to the Divine will? The average Protestant is far less capable of such submission than the average Catholic and this difference is reflected in statistical studies.

Schizophrenia is an arrhythmic mode of life. A higher than average incidence of coronary disease has been found in a large series of schizophrenics.

Duplicity was seen by Boris Pasternak as a characteristic of many coronary lives in Russia. I have even read a book on coronary disease by a U.S. Mid-West professor who considered that sin—a sinful mode of life—was the main aetiological factor! (Peete 1955). If we equate sin with an arrhythmic life, at variance with the serene philosophic life, full of tension and grief and possibly accompanied by a sense of guilt, then he may be not far out.

Many coronaries are depressive and seem to live driven lives 'unable to stand and stare'. Their lives have been described as 'patterns in self-destruction'.

Personal cases

Three recent cases are described:

1. Mr HS aged 45. Director and owner of a large trucking business. Although almost house-bound for seven years from phobic anxiety, made a fortune from telephonic business arrangements. *Over weight:* usually about 15 stone. *Smoked* more than 60 cigarettes daily for 20 years. Takes very little exercise. He is mesomorph in appearance—Sheldonian assessment 532. Has had occasional attacks of mild asthma for ten years. Phobic anxiety for 20 years; never goes in lifts or leaves his own county. Frightened to go to centre of local town. Refused to have psychiatric treatment. He is a large, red-faced, affable man who never stops talking. Mildly hypomanic. 'Always seeking dominance', 'never at peace', often quarrelling with wife and family. Frequently going to his near-by golf club, drinking with his friends and then belatedly coming home to a stone-cold meal and a glowering wife (whom he had sterilized to improve his own

asthma as neither would use contraceptives!) His coronary thrombosis in October 1966 followed a period of extra family worry and business stress.

His history shows a classic arrhythmic mode of existence and a traumatic inner life. A very intelligent man, he acknowledges the significance of the psychic factors in his illness and showed signs of achieving philosophic self adjustment. Made a very good recovery.

2. Mr AB aged 34. Group supervisor of vacuum salesmen. Married with five children. Five feet five inches in height; weighs 15½ stone. First coronary thrombosis at 31, second at 34. *Habits:* smokes more than 40 cigarettes a day, works long and irregular hours but takes little athletic exercise. Leads a highly irregular sex life. Wife has been treated for 'severe neurosis' for past three years. Home is an untidy, noisy, unhappy place. Mr AB has come up socially and financially in the world. He is uncultured and appears to have no hobbies or time for relaxation. Has an aggressive manner. He is obese, takes little exercise, smokes excessively, lives an arrhythmic irregular life full of stress, money-making and sex irregularities. A life almost guaranteed to produce coronary thrombosis.

3. Mr AT. Died on 9 December 1967 of coronary thrombosis, aged 62: manager of small cloth factory. A saddle aortic embolus developed a few days before he was due to leave hospital. His thrombosis was preceded by a few weeks of mild anginal pain, and intermittent claudication which he made light of. (Information from wife).

Family history: Father died at age 70 of 'angina', mother died of diabetes mellitus, aged 70. Two brothers are diabetic. *Medical history:* He inherited a small cloth mill, eventually lost through bankruptcy. Latterly worked in it as a manager. His illnesses were all related in time to the various vicissitudes of this business.

1955 Concussion in car accident.

1958 Folliculitis, and boils on buttocks. Insomnia—depressed.

1958/59 Severe depressions. I.P. mental hospitals two occasions. Ruin of business at this time.

1961 Tuberculous pleural effusion. Chemotherapy, two years.

1964 Depression—responded to nortriptyline.

Overweight by one to two stone for past ten years.

1965/67 Intermittent mild insomnia. Working hard in factory.

Personality and habits: Smoked 40—50 cigarettes daily for about 20 years, very little exercise outside factory. Little alcohol.

Personality notes: 1957 'Worried, introspective, sweats freely'.

1959 'Labile, emotional, anxious, agitated and depressed.'

Married twice. Three sons by second wife, a solid, hardworking woman who helped him at work, and often prevented him from 'blowing his top'. A volatile little man, unlucky, prone to depression, manner pleasant, self deprecatory. Smoked excessively, overweight, took little or no exercise. To add to his many woes he had an affair with a girl in the factory who became pregnant by him.

Precipitating stress: On morning of his attack he had been 'very frustrated' at business, moving heavy weights of cloth, and 'shouting' at employees. Always excitable and easily irritated. Wife—whom he called 'mommy' in the factory—was not present to calm him.

Conclusion: An inherited metabolic factor certainly present (two brothers and mother diabetic, father died of angina. Patient overweight, prone to boils.) An arrhythmic life and personality, full of stresses—many self inflicted. Excessive

cigarette smoking. Little or no exercise. Disregarded preliminary weeks of angina, and claudication. Overweight. Severe depressions: 'blew his top' at work often. Occasional excessive physical work at factory. In retrospect his mode of life was such that he could be said to have done everything possible to ensure having a coronary thrombosis.

Summary

The aetiology of coronary thrombosis is clearly multifactorial. In this paper I have tried to show that the real *causa causans* of this disorder is the self-injurious way of life of the patient. This is the primary reason why these people drive themselves towards materialistic goals, why they overeat and smoke too much, why they take insufficient exercise and seldom relax, why their serum cholesterol rises and their blood clots more quickly. To some extent these are ills of western 'civilized' life, but they are not inevitable in any individual's life. This is a disorder of the whole person. In the words of Péguy "When a man dies, he does not just die of the disease he has—he dies of his whole life".

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Publicity

I cannot help alluding to the crying and glaring sin of publicity, in medicine, as indeed in everything else. Every great epoch brings with it its own peculiar curse as well as blessing, and in religion, in medicine, in everything, even the most sacred and private, this sin of publicity now-a-days most injuriously prevails. Every one talks of everything and everybody, and at all sorts of times, forgetting that the greater and the better—the inner part, of a man, is, and should be private—much of it more than private.

Horae Subsecivae. JOHN BROWN, M.D. Edinburgh. David Douglas. 1858. Pp. xli.