REFRESHER COURSE FOR GENERAL PRACTITIONERS**CARDIAC NEUROSES**

BY

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Despite determined attempts to separate cardiac neurosis from Da Costa's syndrome there is no clearly defined difference between them, and the slender distinctions that can be made are academic rather than practical. The syndrome consists of a group of symptoms and signs referable to functional disturbance of the autonomic nervous system and related primarily to anxiety.

History

The first classical description came from Da Costa in 1871, based on his experience in the American Civil War. A year later Charles Darwin (1872), who suffered greatly from the condition, described the symptoms with extreme clarity. It is odd that these works were not correlated at the time. The first attempt to investigate the problem scientifically was made by Lewis (1917) at Hampstead, and later at Colchester. His chief contribution was to prove that the disturbance was functional, and that it did not depend upon organic disease of the heart. He discarded the terms "D.A.H." and "soldier's heart," and coined the phrase "effort syndrome," believing that the signs and symptoms were identical with those produced on effort by a normal individual.

It fell to the Mill Hill team in 1941 to show that over 90% if not all of these cases were psychiatric (Wood, 1941a, 1941b). In a note on nomenclature it was suggested that the disorder might with advantage be called Da Costa's syndrome, for disturbances of the heart and circulation deserved no special emphasis in a condition in which the respiratory, somatic, visceral, and sudomotor systems were equally involved; moreover, the term had the merit of heading the syndrome into a historical cul-de-sac, for it was believed that the physical approach was wrong, and that a proper psychiatric diagnosis could invariably be made, commonly but not necessarily an anxiety state. Lewis's view that the symptoms were identical with those produced in a normal person on strenuous effort was disproved.

Aetiology

It should be clearly understood that cardiac neurosis is not an imaginary disorder; on the contrary, sufferers from so chronic and incapacitating a malady are often to be pitied more than those with organic heart disease. The aetiology is always psychiatric: it is commonly an anxiety state, usually associated with reactive depression and not infrequently with hysterical features; occasionally it is part of a hypochondriasis; rarely it is the physical manifestation of a psychosis.

A history of neurosis in one or other parent is obtained in over half of the cases, and at least two-thirds exhibit neurotic traits in childhood. The most constant characteristic is timidity, which results in lack of confidence, a sense of inferiority, and undue apprehension. On such soil an anxiety state takes root very easily. It is customary to blame adverse environmental factors, but in my opinion hereditary predisposition is much more important; the personality tends to disintegrate in circumstances that are not beyond the range of common experience.

Precipitating factors are usually multiple and are closely linked with fear. In childhood this is often fear of football or swimming; fear of battle in wartime requires no emphasis, but the minor pinpricks of Army life, away from the security of home, are almost as frequently responsible. In civil life it may be fear of being unsuccessful, of being proved inadequate, of being a failure; social difficulties may precipitate a breakdown, but sex problems seem to play a relatively minor part. As previously stated, the final provocative agent is relatively unimportant, though it may loom large in the patient's history.

Palpitations and left inframammary pain may suggest the idea of heart trouble to the patient, and in the past this has been all too often confirmed by the practitioner, who mistakes tachycardia, overaction of the heart, and a systolic murmur for evidence of heart disease. This misconception at once closes a vicious circle, for the patient then develops a fear of sudden death, which enhances his anxiety and so increases his symptoms. In the process of time autonomic reactions to a variety of stimuli that probe the weakness in the patient's character become ingrained as conditioned reflexes and may become divorced from emotional tone. Pernicious grooves of this kind are extremely difficult to eradicate.

Finally, there is a group of cases in which the syndrome is perpetuated by a motive for gain. This is best illustrated in compensation neurosis, and during the war it was obvious at every medical board. To men of this kind sickness offers security and protection.

Incidence

Approximately one in three or one in four patients who present themselves at cardiovascular clinics are suffering from psychoneurosis without organic disease of the heart. The ratio of males to females is 2:3. Although commonly a disorder of young adults and women at the menopause, it is by no means infrequent in children and in elderly subjects of both sexes.

In the 1914-18 war there were some 60,000 casualties from effort syndrome in the British Forces; in the 1939-45 war there were remarkably few so labelled, owing to the enlightened attitude of medical officers; on the other hand, there may have been more recognized psychiatric cases.

Clinical Features

The chief symptoms include breathlessness, palpitations, fatigue, left inframammary pain, dizziness, undue sweating, and headache.

Breathlessness is not limited to effort. Patients usually complain that they are unable to obtain a satisfying breath—hence the frequent deep sighs. Breathing is apt to be hurried, irregular, and shallow. As a rule the breath cannot be held for 20 seconds, yet when the breaking point is reached there may be no dyspnoea. Again, if the patient is asked to overbreathe for a minute, subsequent dyspnoea often replaces the normal period of apnoea and must

depend upon a hysterical mechanism. Associated dizziness and tingling of the fingers during the test prove genuine hyperventilation.

Palpitations differ in no way from those produced in normal subjects in moments of fear or after an injection of adrenaline. During an attack the cardiac output is raised, the systolic blood pressure is elevated, and the heart beats more quickly and more strongly. The stimulation is central and there is no hypersensitivity to adrenergic substances.

Fatigue, perhaps the commonest symptom in psychoneurotic patients in civil life, may be attributed to emotional conflict. The mechanism is not clearly understood.

Left inframammary pain plays an important part in the development of cardiac neurosis by suggesting heart disease. The pain is usually described as a dull ache with intermittent sharp jabs; the dull ache may last for hours or days at a time, but the jabs are always momentary. Although commonly situated in the left inframammary region, the pain may be nearer the sternum, further out in the axilla, or subclavicular; sometimes it is also felt at the angle of the left scapula, and in about 25% of cases it also occurs on the right side. Radiation down the left arm is common. Pain is aggravated by lying on the left side and is often provoked by fatigue; although it may occur during effort it is more usual afterwards.

Psychosomatic pain should be a positive diagnosis, not one to be arrived at by a process of exclusion. The qualities described are remarkably constant and there are rarely grounds for confusing the pain with angina pectoris. The mechanism of its production is by no means clear, but it arises in the soft tissues between the superficial and deep intercostal fascia at the site where it is felt; it is not referred. Injections of procaine hydrochloride or saline into this tissue relieve the pain at once, but no relief is afforded by cutaneous, subcutaneous, or pleural injections. The pain is certainly not imaginary, but it may be exaggerated and perpetuated by the belief that it arises in the heart.

Vasomotor syncope occurs in about one-third of the cases, but attacks of momentary dizziness are very common. The latter is a frequent complaint in middle-aged men, and even now in civil life is often attributed to some disorder of the heart. Little will have been gained if practitioners who have been taught to recognize the innocence of palpitations and left inframammary pain transfer the anxiety to dizziness.

Undue sweating occurs characteristically on the palms of the hands and in the axillae—the chief emotional sweat areas. The cold clammy hand of the psychoneurotic is well known, and at once distinguishes these cases from thyrotoxicosis.

Headache may be vague or throbbing. The former may well be hysterical, but the latter presents all the criteria of a vascular headache and is promptly relieved on the homolateral side by compression of one or other carotid artery.

Physical Signs

Nearly all patients suffering from an anxiety state present a number of characteristic signs upon which a positive diagnosis may be made. The most important of these may be listed as follows: (1) nervousness, depression, or anxious speech or behaviour; (2) tremor or shakiness; (3) frequent deep sighs or hyperventilation; (4) clammy cold hands; (5) tachycardia (except when asleep); (6) raised casual blood pressure in the region of 160/90; and (7) inability to hold the breath for longer than 20 seconds and post-hyperventilation dyspnoea.

Treatment

It is well to remember that the majority of anxiety states run a chronic or recurrent course throughout life, and it is doubtful whether more than one-third make a complete and lasting recovery. Nevertheless, physical incapacity may be relieved in most cases seen in civil life.

The first step is to reassure the patient unconditionally that his heart is strong and healthy and is not responsible for pain, breathlessness, or dizziness, and that palpitations merely denote a good heart responding to conscious or sub-conscious emotional stimulation. His fear of sudden death must be relieved; this at once breaks one of the vicious circles. Many patients resist the idea that their hearts are normal and are unlikely to accept such an opinion unless it is based on a full physical examination, preferably supported by radiograph and electrocardiogram. Such tests should not be regarded as a waste of time and energy because the history clearly denotes a chronic anxiety state. It is not difficult to convince a patient that strong emotion, especially fear, causes hurried breathing, palpitations, tremor, and sweating of the palms; it is but a step to explain that continued anxiety acting over a long period of time may have a similar effect. Left inframammary pain is less easily explained, but it may be attributed to undue muscle tension and faulty posture without deviating too far from the truth. Many patients with Da Costa's syndrome have similar pains elsewhere, particularly low back pain. They readily appreciate that there is little difference between the two except the site of origin.

Most patients are prepared to recognize that they have an anxiety state when they are told firmly that there can be no other cause for their condition, and when they feel that by such an admission they will not forfeit the sympathy of the doctor. The various steps that have led to the final breakdown should then be traced, including parental and constitutional factors. The more obvious and immediate provocative agents are rarely important aetiologically, certainly not those difficulties that the patient recites with gusto. It is always necessary to probe deeper and to be content with nothing that does not excite a strong emotional reaction. The exposure of real anxieties nearly always results in tears—in both sexes. Psychiatrists usually know when they are approaching important psychological difficulties by meeting what they call resistance, the patient trying to evade the issue or becoming silent and diffident.

Another useful axiom is that anxiety states rarely develop without a multiplicity of causes. In a busy practice it may seem impossible to spare the necessary time to discover them, yet in the long run it is economical; certainly it is better to spend an hour or two making a proper initial diagnosis than to waste a few minutes each week over the years looking after someone who is believed to have a "tired heart."

To give a patient insight into the cause of his condition, however, does not necessarily improve his symptoms, but it does allow him to appreciate their innocence and so prevents physical incapacity. As a rule, too, the frank discussion of his difficulties brings a measure of psychological relief. Every effort should be made to cure obvious predisposing factors. With the help of sound advice such patients should be able to resolve their difficulties, though they may require courage to take the necessary steps. In the simpler cases a month's rest and relaxation may be of great benefit.

The group with strong evidence of predisposition is more difficult to treat successfully. As previously stated, the factors that have precipitated the breakdown in these cases are hardly beyond the run of common experience, and

similar difficulties are bound to be encountered again. Therefore, little is gained by psychotherapy, the patient's character being virtually unchangeable. Nevertheless, it should be possible to prevent physical incapacity even in this type.

Although a good physician should be able to deal with most cases of "cardiac neurosis," he should not hesitate to enlist the help of a psychiatrist if he can make no headway.

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EDUCATION OF THE PUBLIC CONCERNING CANCER

BY

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There is one fact in connexion with cancer that has been proved beyond any doubt: in certain sites it is curable in a high percentage of cases, if diagnosed and treated early. It is also beyond dispute that in the majority of patients who come to be treated the disease has already reached an advanced stage. There are many reasons for this, and a considerable difference of opinion exists on which of them is chiefly responsible. Some practitioners consider the chief cause is that the symptoms of malignant disease in many sites are insidious in their onset; they resemble those of trivial complaints, and the patient is almost unaware that anything is wrong until the disease is widespread. This is true of cancer of the lung, cancer of the ascending colon, and cancer of the stomach, but not (as a rule) of skin cancer, breast cancer, and uterine cancer. Some people blame the general practitioner—often unfairly—for not diagnosing the disease and sending the patient to hospital while it is still curable. Others think there is considerable evidence that the blame rests with the patient, who is too ignorant or too fearful to report to the doctor when the symptoms are first noticed. Let us consider these possible causes in turn, and discuss remedies.

Insidious Onset of the Disease

In theory, the only way to remedy this cause of late diagnosis would be to carry out a complete overhaul of every member of the population once or twice a year. This is absurd; even if it were possible, many cases would be missed. "Tumour clinics" have been established in some countries, notably America; although a number of unsuspected cases have come to light the number is not sufficient, in the opinion of many people, to justify the employment of so many specialists. It may be argued, however, that such clinics give mental relief to people who have a hidden dread of the disease and do not wish to visit their own general practitioner for fear of being considered neurotic.

The General Practitioner

In some cases the G.P. does miss an obvious case of malignant disease, but it is easy to make excuses for such

mistakes. The first of these is overwork. How can a general practitioner afford fifteen or twenty minutes to take an accurate history and examine, for example, a patient aged about 45 who complains of irregular bleeding? It is much easier to prescribe some ergot and tell her it is probably the "change of life" and to return if the condition is not improved. Again, it must be realized that the number of cancer patients seen by any one general practitioner in a year is small, though the aggregate is probably over 100,000. It is also true that most of the patients first present themselves with the disease far advanced; the practitioner takes a pessimistic view, and possibly does not bother to look out for early cases.

Is there any method of remedying this cause? Yes. A certain amount can be done to help the practitioners by lectures in the cancer centres, to remind them of the early signs and symptoms and to point out that the outlook is not so hopeless if the case is diagnosed and treated while the disease is still localized. One cancer organization in this country has already started work on these lines.

Ignorance and Fear of the Public

In my opinion this is the greatest difficulty in the way of early diagnosis, and this view is backed up by a recent survey of cancer patients in the London area. The figures from this survey showed that over 55% of patients suffering from cancer of the breast waited for more than three months after noticing a lump before consulting a doctor, and over 16% waited longer than a year. Roughly the same figures are given by a study of patients suffering from cancer of the uterus who had disregarded "irregular bleeding."

It is not suggested that all these patients lost their lives as a result of the delay, nor that all those who died would have been saved. Nevertheless, if the well-established survival rates of patients treated in the early stages are applied to the patients who died, it is more than probable that over 2,000 women every year would be saved from death due to cancer in these two sites alone.

Knowledge the Antidote to Fear

Can these great contributing causes to the high mortality of cancer—fear and ignorance—be overcome by an educational campaign among the public? Many people think it is quite impossible; but, as Nansen said, "Things which are difficult to do take a long time, and those which are impossible take longer." Others think that the only result of such an effort would be to increase fear of the disease and create a population of neurotics. If this were correct it would indeed be terrible, for it is better to die of cancer than to live in constant dread of it. But it would not be true if the campaign of education were carried out in the right way. There are at the present time many people who are suffering from cancer phobia, and who are very difficult to convince that they have not got the disease, but there are thousands who are apprehensive because of ignorance.

There are over 73,000 deaths each year from cancer, and nearly every one of those patients die in their own homes and are looked after by their own relatives; it is therefore a conservative estimate that over 200,000 people each year come in contact with the disease under the most distressing circumstances. In the course of years, the number who undergo this experience is very great. Is it to be wondered that there are many thousands of people who suffer apprehension over a disease about which they know nothing and are told nothing? To misquote, "this ignorance doth make cowards of us all."

Another argument sometimes used against such a campaign is that patients will crowd out the surgeries. This