

REHABILITATION PROGRAMME FOR CORONARY PATIENTS

ORGANISATION OF A CORONARY REHABILITATION CENTRE

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Three questions need to be answered in setting up a coronary rehabilitation centre, why, where and how. Rehabilitation means a restoration of health or at all events a return to as full health as is consistent with residual disability, and in the last analysis all medical treatment has this as its real aim. The most skilful advance in techniques has to be judged on the ultimate result in the individual patient, and no therapy however sophisticated can be called successful if the patient after treatment remains ill, depressed, and pensioned off. This needs emphasis in the case of coronary heart disease because there have been great advances in management in recent years, many useful lives are being saved and much disability being prevented and rehabilitation measures need to match these advances. In fact we now know that the outlook as to future health, provided the patient follows certain common-sense rules, is much less gloomy than used to be thought in cases of coronary disease. We are all familiar with cases who have had a coronary occlusion many years ago and seem to go on and on. Sometimes one doubts whether quite definite cases ever really had an occlusion. Those with long years of experience in the cardiac field are always impressed by this point and Dr. Paul Dudley White has been writing on this subject for years. In his book with Miss Helen Donovan "Hearts, Their Long Follow-up", he mentions a farmer sending him a Christmas turkey each year from 1925 to 1948 after he gave a good prognosis and advised a return to normal activity, including work, in the face of contrary advice by the family doctor, who in 1925 suggested he should retire. Another patient mentioned by White had a cardiac infarction at the age of 52 and died of pneumonia at the age of ninety with good health in between.

It is difficult to obtain conclusive figures on the extent of long term survival in coronary disease. Master's findings are often quoted—of patients who leave hospital a half live five years at least, and three quarters of them get back to work (1954). Katz and others in 1953 found that overall after the first coronary occlusion of those who survived the first two months two thirds lived more than five years, and two fifths lived more than ten years. A recent report published by the Metropolitan Life Insurance Company of New York throws light on this question. In order to obtain sufficiently long follow-up, a study was made of all men for the years 1925 to 1949 who were considered able to resume their normal occupation or other suitable work after an attack of coronary heart disease. The group studied comprised 537 males insured under ordinary policies, and they were followed to the 1969 anniversary of recovery—that is for at least twenty years. There is much of interest in this report, but an interesting finding was that 25 per cent of all men survived for at least a quarter of a century. It is figures like these that provide the basis for modern rehabilitation programmes. Unless positive steps are taken, cardiac rehabilitation tends not to get done, and cases of unwarranted invalidism result.

It is a desirable that a coronary rehabilitation centre should be set up in relation to a hospital, ideally each hospital should have its own. There are two reasons, one that there is sometimes a need for the

hospital's laboratory or other facilities, on rare occasions including resuscitative facilities, and secondly, more importantly because a programme of cardiac rehabilitation should commence quickly. Experience has shown that it is desirable to face up to the patient's thoughts about the future early. Lying in an intensive care ward while being monitored and later while convalescing in the general ward he has plenty of time to think, and it is not unnatural that the thoughts tend to the pessimistic side. It is often a crippling blow for one who has regarded himself as a fit, healthy, self-sufficient, masculine male to be placed often overnight in a position of dependency with an uncertain future and the prospect of invalidism. Reassurance, when this is justified on the facts, is never out of place and can only do good. It is principally a matter of spending the time in communication and explanation—what one understands one is less likely to misinterpret. In the case doing well an early institution of a positive programme possibly including mild exercise progressively increasing along supervised lines has an important role in reducing symptoms and promoting wellbeing. The main risk factors should be tackled firmly—the overweight patient should be urged to reduce to a planned optimum weight, modification of the diet to reduce the blood lipids particularly if these remain high in tests taken during convalescence, and unequivocal counselling to give up cigarette smoking are all indicated in an effort to restore the patient to full health. The management of diabetes by appropriate measures and the control of hypertension when this is present are other important measures designed to reduce known risk factors. A coronary occlusion is a strong motivating factor to the patient to co-operate in such a programme and it is a frequent comment from patients who have been managed along these lines and who are determined to get well that they are "better now than before they had the heart attack", or that the heart attack was "the best thing that could have happened to them". There are many suitable progressive exercise routines, such as the Torkelson Plan, and the Montefiore Hospital Programme described in the recent excellent book by Zohman and Tobias.

The doctor is the leader of a team designed to return the patient to full health, and this team may include social worker, occupational therapist, physiotherapist, dietitian, clinical psychologist, psychiatrist, and employment officer, and each may have a role in individual cases. The attitude of any one of these can tilt the delicate balance in the difficult problem case one way or the other, and the assessment of the doctor as to the individual needs of the individual patient and the best way of coping with them can determine the outlook of the whole team. When the patient is fit for it full medical assessment is necessary including clinical examination, electrocardiography, before and after exercise, fluoroscopy, and specific exercise testing. The Norris Prognostic Index, already outlined at this conference, is useful for early assessment as a guide to the likely future course in the individual case, and Dr. Eric Schiller in the Sydney Unit is making use of this index in a special research study. Later fuller assessment can be made with maximal or submaximal exercise done in accordance with proper clinical judgement. Group exercises can be particularly useful in heart cases as one patient's performance encourages another. Occupational and social work assessment is

done concurrently and an individual objective can be planned for each patient. In the majority of cases this will include among other things a return to work, for this is a disease of men of working age, and experience has shown that four out of five men referred to cardiac rehabilitation units are fit for full-time competitive employment with selective placement. With the team approach it has been found in these units that something like 75 per cent to 80 per cent of those fit are actually returned to the work force.

There is still resistance to the employment of patients recovered from coronary occlusion in industry, but it is diminishing and is much less than it was a few years ago. Educational seminars for employers have been shown in our unit to be a useful tool in rehabilitation and experience has been that the average employer is prepared to give a man a go provided he is filled in on the nature of the heart condition, any hazards to be avoided and just what the man can and cannot do. One need not be diffident in approaching an employer to discuss these points as it is found that personnel officers and managers welcome such contact with the medical people. It gives them a sense of security in taking a man on, and also a sense of helping. In the same way it is frequently found that an early approach by the social worker to the employer, while the patient is still in hospital and as soon as it becomes reasonably sure that satisfactory recovery will occur, is often successful in retaining a man's job which would otherwise have been filled. It is important in organising a coronary rehabilitation unit to formulate a policy, to determine the aims and to assess how much can be achieved in terms of the facilities available. Individual enthusiasm can uncover unsuspected resources of skill and knowledge in terms of personnel. While a large centre with facilities for maximal and submaximal exercise testing together with vocational assessment counselling and placement facilities is good, it is not essential. In its simplest form cardiac rehabilitation is mainly a matter of communication man to man and involves spending time sitting down with the patient in explanation and support,

and subsequently advising on a plan of return to normal activity. Any unit, however small, can do this. I mention this because I feel that many smaller hospitals are discouraged from tackling the problems of coronary rehabilitation because they lack the elaborate apparatus sometimes considered necessary. As a principle any doctor or institution undertaking the treatment of coronary heart patients should have a positive plan of rehabilitation, the two should go hand in hand. Therapeutic responsibility does not end when the acute illness is over, in many cases it is then only really starting. The policy of the New South Wales Division of the National Heart Foundation of Australia includes:

1. provision of a centre where diagnostic, exercise testing, social work counselling, and employment placement facilities are available.
2. support for efforts to stimulate early rehabilitation in the hospital setting, and for the establishment of follow-up rehabilitation clinics in the hospital, and
3. support for educational programmes designed to stimulate better communication between general practitioners, patients, relatives, employers, and the public generally with the rehabilitation of the heart patient in mind.

In addition planned research into the factors that retard successful rehabilitation is being carried out at the Unit and selected hospitals, and this will be outlined in a paper by Dr. Eric Schiller at this conference.

In conclusion to sum up and answer three questions asked at the outset:

1. why—because the need is there,
2. where—preferably in relation to the hospital, and
3. how—using full facilities of personnel and equipment to obtain the maximum information possible about residual cardiac function and performance and prospects of re-employment, but not ignoring the problem of cardiac rehabilitation if one has to settle for less.