CORRESPONDENCE

Correspondents are asked to be brief

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Cardiac Transplantation Today

SIR,—Your leading article on cardiac transplantation (13 November, p. 377) is most welcome. I would like to join you in paying tribute to Dr. N. Shumway and his colleagues for obtaining results which compare favourably with those reported for renal transplantation by the Kidney Transplant Registry as recently as 1965.

The fact that these results have been achieved by using methods of immunosuppression which are widely known and which have been, and are being, used in renal transplant recipients, disposes of the notion that the immunological barrier in heart transplantation is of a different order of magnitude from that which occurs with kidney transplants—a notion which became current as a result of the numerous dismal failures in various parts of the world which followed Professor C. Barnard's first successful clinical heart transplant some four years ago.

What then are the reasons for Dr. Shumway's success? I would suggest in particular the long period of patient experimental work which preceded the first clinical trial, and the readiness to make use of the lessons already learned by people engaged in clinical transplantation of the kidney. Is there then any reason why, given the same combination of

competence in the fields of cardiac surgery, and immunosuppression, and the characteristics of common sense and humility which Dr. Shumway possesses so abundantly, comparable success to that achieved at Stanford could not be achieved elsewhere?

One factor which might affect the answer to this question concerns the criteria of death applicable to the donor, since this clearly affects the so-called "warm ischaemia time" of the transplant. It would be interesting to know whether the criterion of brain death is used at Stanford, since if this is the case, the question would arise as to whether the heart would tolerate the longer period of ischaemia which would result from using the criteria which are generally accepted in this country. My guess is that a human heart transplant would be no less tolerant of ischaemia than a human kidney transplant. In the last resort only clinical trial will show whether or not this is true, but the first step should be to investigate the question in experimental animals.—I am, etc.,

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Coronary Deaths—How Unexpected?

SIR,—There is a widespread conviction that fatal myocardial infarction strikes with little or no warning. Your nihilistic leading article on "Coronary Deaths" (9 October, p. 64) unhappily reinforces this conviction, because it draws its conclusions from studies which have shown that the conventionally accepted warning signs, such as chest pain and E.C.G.

changes, may be delayed almost to the moment of death. It fails to admit the possibility of a wealth of earlier and therefore more valuable predictive evidence.

It is becoming more widely recognized that myocardial infarction is not a sudden event but the outcome of a long-standing coronary arterial disease process,¹ which may

be well established even in the second and third decades of life.² Necropsies in "unexpected" coronary death show that the pathological changes of this long-standing disease process chiefly affect the blood supply of the left ventricle, and it is reasonable to explore the possibility that dysfunction of the left ventricle could give rise to symptoms and signs long before the stage of pain and muscle necrosis.

We have taken a close interest in the "coronary" personality and the pre-infarction phase of coronary heart disease, and have concluded that there are both recognizable behavioural characteristics and cardiac symptoms and signs of value in the diagnosis of this condition.³ The symptoms suffered by the patient usually extend over many months, during which there is a deterioration of general health, increasing fatigue, and loss of effort capacity with uncomfortable exertional dyspnoea. Business efficiency deteriorates, tensions rise, and irritability becomes more marked, but the patient ignores these symptoms, which he commonly attributes to ageing. We have encountered patients who have lost more than 80% of their usual capacity for physical effort without ever having experienced angina pectoris.⁴ In some cases a single severe attack of ischaemic heart pain on effort acts as a warning not to repeat the experience. It is a common finding that the patient will deny or rationalize a gross deterioration which is obvious to his wife and friends. The aggressive, type A behaviour pattern displayed by many of these individuals has been well described.⁵

The physical sign which indicates that the heart is the probable cause of this deterioration is the palpable and audible atrial gallop, which is most easily elicited by examining the patient in the left lateral position. We have found this sign in 65% of a series of 72

patients with coronary heart disease in whom the E.C.G. was abnormal in only 17%.⁶

In summary, there is a specific personality type, displaying particular behaviour traits, who is at high risk for the development of coronary heart disease. When such an individual becomes overstressed by his environment he is liable to develop the symptoms we have outlined and the atrial gallop. We believe that this syndrome represents a pre-infarction state and that decisive steps should be taken to protect the individual without waiting for the infarction which may cause sudden death.—We are, etc.,

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- 1 Goldstein, S., and Moss, A. J., *American Journal of Cardiology*, 1969, **24**, 609.
- 2 Enos, W. F., Holmes, R. H., and Beyer, J., *Journal of the American Medical Association*, 1953, **152**, 1090.
- 3 Nixon, P. G. F., Lecture to the 4th International Seminar on Rehabilitation. To be published in *Rehabilitation*.
- 4 Nixon, P. G. F., *Health Visitor*, 1970, **43**, 356.
- 5 Friedman, M., and Rosenman, R. H., *Journal of the American Medical Association*, 1959, **169**, 1286.
- 6 Nixon, P. G. F., and Bethell, H. J. N., *British Heart Journal*, in press.

Hospital Advisory Service

SIR,—I enjoy your series "Personal View" and support the concept of independent opinions being freely expressed. However, I would like to correct some of the errors expressed in one of these articles. Perhaps Dr. J. L. Crammer (6 November, p. 359) should have mentioned that he was on leave, or away from the hospital, for some of the time when the team from the Hospital Advisory Service visited.

The team spent two weeks (not three) in the hospital, and his suggestion that their arrival was "semi-secret" and that they had no office or mode of contact would be comical if it were not so misleading to others. I wrote to the hospital some weeks before the visit and asked the group secretary to display notices announcing the visit in a prominent place in the hospital. I also wrote independently to the senior nurse and medical administrator. I asked the group secretary to arrange a meeting when the team arrived, which would include the senior staff mentioned and other heads of departments, together with representatives of the management committee. An office was provided for the use of the team and they were in and out of the hospital and this office every day. Also, they frequently used the hospital canteen. If Dr. Crammer feels that the visit was semi-secret, or that staff in the hospital did not know the team was coming, this may be a reflection on the internal communications of the hospital rather than the Advisory Service.

I note that some of his friends had shown him confidential reports of our visits to other hospitals. I must point out that this kind of breach of confidentiality has led to quite bitter complaints from other doctors. Dr. Crammer continues by describing the Advisory Service as an inspectorate, which it is not and never has been.

Many of his other comments show an equal lack of knowledge or appreciation of the functioning of the Advisory Service. He says that the team came as "political missionaries to teach us the Creed of the Elephant;

medical superintendents are bad. . . ." The Advisory Service is independent of the Department of Health and teams visit as independent professionals to make their own assessments. As for medical superintendents being "bad," many of the psychiatric consultants working for the Advisory Service, including the one on the team visiting the hospital concerned, have been medical superintendents. The staff of the Advisory Service come from the hospital service, and after a relatively short period (on average a year) return to it. It is, therefore, unlikely that they will identify with the Department of Health, or give advice they would not like to see implemented in their own part of the service.

The nub of my disillusion with Dr. Crammer, if I may borrow one of his phrases, is his misunderstanding of our role. I hope that he and others who would like to have some facts about the Advisory Service, will read my Annual Report for 1970.¹—I am, etc.,

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- 1 National Health Service Hospital Advisory Service, *Annual Report for 1969-70*, London, H.M.S.O., 1971.

"The Loose Back"

SIR,—The first edition of Hackett's book on ligamentous laxity as the cause of backache appeared in 1956.¹ This concept had led him to advocate infiltration of the lumbar ligaments with a sclerosant solution. Ongley in New Zealand experimented with different agents, and his preferred sclerosant remains that largely employed today.² These injections became increasingly popular after Barbor's favourable report.³ When these injections were tried out by him on 67 cases regarded by myself as entirely incurable 34 were fully relieved and had stayed so a year later.⁴ It is not clear to me how ligamentous laxity can of itself cause pain. The greatest degree of lumbar laxity occurs when one disc has become completely eroded. In such a case the intervertebral ligaments have become up to 1 cm too long, but no symptoms necessarily ensue.

In my view it is not the intervertebral joint that has become unstable but a fragment of disc within it. If this shifts to and fro easily recurrent attacks of lumbar pain result, each very simply aborted by manipulation without effect on the tendency to recurrence. Manipulation would, by contrast, increase ligamentous laxity and exacerbate a recent ligamentous sprain.

That lumbago, which your leader (30 October, p. 251) mentions, is not caused by a ligamentous lesion becomes clear when the physical signs are evaluated. The lumbar joint is suddenly fixed in flexion; if it deviates it is often away from the painful side. These signs exclude both a strained posterior ligament and sacrospinalis spasm, which would fix the joint in extension. They indicate a block at the back of the joint.⁵ Moreover, during the acute phase neck flexion hurts, a cough hurts, and straight-leg raising is bilaterally limited—all signs of pressure on the dura mater. This can result from a posterior disc-protrusion but not from a strained ligament.

The fact that ligamentous sclerosis may stop these attacks provides no evidence that the ligaments were the source of pain. The chemically-induced contracture may well further joint stability and abate the tendency to attacks of internal derangement dependent on the presence of a loose fragment of fibrocartilage.—I am, etc.,

JAMES CYRIAX

London W.1

- 1 Hackett, G. S., *Joint Ligament Relaxation*, Springfield, Thomas, 1956.
- 2 Ongley, M. J., in Cyriax's *Textbook of Orthopaedic Medicine*, 4th edn., p. 506, London, Cassell, 1962.
- 3 Barbor, R., in *Proceedings of Fourth International Congress of Physical Medicine*, International Congress Series No. 76, Excerpta Medica Foundation, Amsterdam, 1964.
- 4 Barbor, R., in Cyriax's *Textbook of Orthopaedic Medicine*, Vol. 1, 5th edn., p. 588, London, Bailliere, Tindall & Cassell, 1969.
- 5 Cyriax, J., *Lancet*, 1945, **2**, 427.

SIR,—I was interested and amazed by your leading article (30 October, p. 251) on "The Loose Back"—amazed that the suggestions of Howes and Isdale¹ are considered to be new. Most general practitioners who are at all interested in back disorders know that backache occurs most commonly in those who have hypermobile spines. In the adolescent group this is often associated with other examples of loose jointedness such as osteochondritis of the patella, indeed, it may lead to osteochondritis of the vertebrae.

In all ages it is associated with spinal muscles which are inadequate in strength for the protection of the ligaments and the maintenance of spinal posture. A patient makes an awkward movement and gets pain in the lumbar region, or less frequently, in the dorsal region or the neck. The most usual finding is that the pelvis is tilted and rotated, and the spine it supports is thrown into scoliosis to compensate for it. While lumbago is the commonest result, muscle spasm or root pain can occur at any level as a result of the scoliosis.

The first aid is the procedure described by Dr. James Meynill at St. Thomas's Hospital in the early part of the century—consisting of lifting the patient backwards over the manipulator's fixed spine so that the patient's spine is hyperextended and stretched. Failing this a simple rotational manipulation will restore normality. While this is the short-term treatment and is nearly always effective, the long view is to restore normal rhythm and tone to the patient's poor musculature by swimming, cycling, walking, and suitable exercises.

These conditions are associated with excessive dependence on the motor car, lack of regular exercise (the weekend gardener is a frequent victim as he knows not the rhythm and spinal strength of the countryman), and, above all, the tense anxious individual always racing the clock and never allowing the spinal muscles a chance to develop rhythmic movement and normal tone. Unfortunately, this simple situation is so often confused with the more serious and much rarer disc injury for which the treatment is rest.—I am, etc.,

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- 1 Howes, R. G., and Isdale, I. C., *Rheumatology and Physical Medicine*, 1971, **11**, 72.