Salford, and I reported to the Society of British Neurological Surgeons a number of such enterogenous cysts, the most interesting of the series being a young boy who had been operated on as an infant for a mesenteric cyst which had produced melaena. At the age of 10 years he came under the care of Dr. C. E. C. Wells with an intraspinal cyst in the cervicothoracic region, the presence of which was confirmed by myelography. In the absence of any progressive neurological signs laminectomy was not considered necessary or desirable. There was a circular defect in the body of D1 or D2 which contained the "stalk" of an intrathoracic cyst 5 cm in diameter, which was subsequently removed by Mr. T. H. Rosser at Sully Hospital. The combination of all these lesions in one patient throws additional light on the embryology and pathology of these remarkable lesions.—I am, etc.,

CHARLES LANGMAID

Protestant Hospital,
Dabou,
Republic of the Ivory Coast

Further Application of the Nitroblue Tetrazolium Test

SIR,—The claim by Dr. R. M. Rowan and others that the N.B.T. test can be helpful in distinguishing between thromboembolism and lobar pneumonia (3 August, p. 317) is both interesting and surprising. They refer to our prospective study[1] but do not emphasize our view that, in general, the N.B.T. test, whether performed by the original method or by the same modified method as they have used,[2] was of no value in distinguishing pyogenic bacterial infection from other disorders even when performed by highly experienced observers. Though they were correct in stating that this "experience contrasts with that of most previous workers," three subsequent well controlled studies have supported our observations that the N.B.T. test is of minimal value in the differential diagnosis of pyogenic infection.[3-5]

It is now known that the N.B.T. test measures the phagocytosis of particulate complexes of N.B.T. and heparin and fibrinogen by neutrophils, or both.[6 7] The phagocytosis of these complexes may be stimulated in ill patients as part of the acute phase reaction, possibly by the acute phase protein orosomucoid.[7 9] Immature neutrophils are unable to respond to these stimuli.

Raised N.B.T. test results in patients after myocardial infarction[10 11] and operation[8] clearly indicate that false-positive results may occur in acutely ill patients in the absence of sepsis. It is surprising, therefore, that universally low N.B.T. scores were obtained in patients with uncomplicated pulmonary thromboembolism by Dr. Rowan and colleagues. They appear to be comparing a group of patients, most of whom were postoperative or post-partum with pulmonary thromboembolism, with a group with lobar pneumonia who had not undergone operation. This trial was uncontrolled in that other postoperative patients or patients ill from other conditions were not studied. For a valid trial it is essential that both groups be uniform in all but the specific conditions being evaluated. N.B.T. test results may be raised postoperatively and become negative[8] at a time when serum concentration of acute phase proteins are still raised.[12] This suggests that there may be a defect in the ability of neutrophils to phagocytose complexed N.B.T. despite the stimulus of orosomucoid, possibly because of the replacement of circulating mature neutrophils by less mature ones as a result of the enhanced turnover of these cells associated with inflammation induced by operation.[13]

The initial enthusiasm for the value of the N.B.T. test as a non-specific indicator of bacterial infection has not withstood subsequent critical evaluation. This experience provokes us to advise caution before accepting its value in the particular role advocated by Dr. Rowan and colleagues. Their study is unique and thus not subject to direct comparison, but we feel that their results require confirmation using adequate controls and patients with a wider spectrum of symptomatology and disease severity before any diagnostic or therapeutic decisions are reached as a direct result of N.B.T. tests. Until then we would support the view that "N.B.T. reduction is an interesting tinctorial reaction, but it seems most unwise in individual cases to rely on it for important decisions regarding the application of antimicrobial therapy."[14]—We are, etc.,

A. W. SEGAL
A. J. LEVI

Northwick Park Hospital and Clinical Research Centre,
Harrow, Middx

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Psychiatry in the Soviet Union

SIR,—Professor J. K. Wing (10 August, p. 408) is encouraged by someone's statement that Dr. Zhores A. Medvedev's compulsory admission to a mental hospital was "an error." It would be more encouraging if Professor Wing could furnish us with some details—for example, who admitted the error? Was it Professor A. V. Snezhnevsky (Chief Psychiatrist of the U.S.S.R.), Professor George Morozov (Director of the Serbsky Institute), or Dr. A. Y. Lifshits (Head of the Kaluga Psychiatric Hospital)?

Was any promise made to hold an inquiry? Professor Wing is rather vague here. He hints that an inquiry may have been held but that he "may" have missed a public announcement about it. The error is said to have been frankly acknowledged at the Serbsky Institute on 15 October 1973, 10 months ago. It is discouraging that Professor Wing still cannot enlighten us as to what went wrong to cause the incarceration of an eminently sane scientist.—I am, etc.,

I. ATKIN

Weybridge, Surrey

Organic Psychosis

SIR,—It was interesting to see your leading article (27 July, p. 214) on organic psychosis. I wish to report a case of organic psychosis due to a once common but now rare cause —namely, bromide poisoning.

A 57-year-old woman was admitted to hospital after several days' disturbed behaviour. She had a recent history of neurotic depression and possibly barbiturate abuse. She was unkempt and fearful but had no focal signs other than sluggish pupillary light reflexes, dysarthria, ataxia, and tremor. Mentally she showed clouding of consciousness, disorientation, memory defects, and perseveration. A provisional diagnosis of a toxic confusional state was made and the condition ascribed to barbiturate abuse until the serum barbiturate level was found to be zero. Investigations revealed no evidence of metabolic, endocrine, or cerebrovascular disorder, and no evidence of infection or trauma was found. The E.E.G. was abnormal, with diffuse runs of slow and fast waves and short periods of inactivity. The C.S.F. was normal except for a pressure of 180 mm. Her clinical state had not improved after a week, and a serum bromide estimation, done as a "long shot," was 250 mg/100 ml. Salt and a thiazide diuretic were given and the patient's mental state improved slowly over the following four weeks. In a home search bottles of a proprietary nerve tonic which contained nearly 30% w/v bromide salts were found.

Recently there has been renewed interest in bromide poisoning. Carney's review[1] suggests that bromism should still be excluded as an aetiological agent in organic psychoses. My own experience of two cases in six months would tend to confirm this. I believe some doctors continue to prescribe bromides as hypnotics, and there are a number of proprietary bromide preparations available without prescription as nerve tonics and cough mixtures. On removal from the source of bromide some cases of bromism initially worsen.[1 2] Most cases recover slowly as the ion is excreted. Hence the condition may remain undiagnosed even in hospital and the patient might return to bromide abuse on discharge. Increased awareness of bromism may lead to detection of more cases and prevention of others.—I am, etc.,

RICHARD J. W. WILLIAMS

Whitchurch Hospital,
Cardiff

1 Carney, M. W. P., *Lancet*, 1971, **2**, 523.
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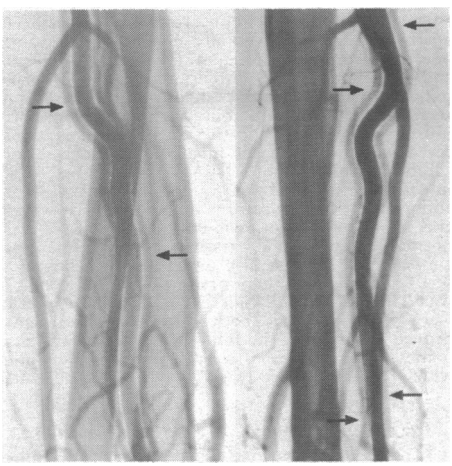
Swelling of Arm in Patients With Arteriovenous Fistula

SIR,—In haemodialysis patients with a Cimino-Brescia arteriovenous fistula swelling of the fistula arm with oedema and phlebectasis has been observed. The cause of the swelling is not always clear. Recently we saw a patient with this condition.

A 75-year-old man with prostatic carcinoma had a side-to-side fistula between the radial artery and the cephalic vein made in his left arm for intravenous injections of a cytostatic drug.[1] The fistula functioned well and caused the patient no inconvenience. After an episode of precordial pains a blood sample was drawn from a subcutaneous vein close to the fistula. As bleeding occurred from the puncture site a fairly tight compression bandage was applied immediately proximal to the fistula. A few hours later the patient had pain and swelling of the arm and hand distal to the bandage. After five hours

he removed the bandage. The swelling of the forearm and the hand increased slowly during the following months, and four months later there was considerable pitting oedema of the hand and the arm up to just above the elbow joint. The volume of the arm was 3·27 l. compared with 2·35 l. for the right arm. Brachial angiography and phlebography showed the arterial pattern of the arm to be normal except for the fistula. Almost all the blood from the fistula, however, flowed into the distal limb of the cephalic vein. The lumen of the cephalic vein proximal to the fistula was almost completely obstructed by old thrombotic material. The deep veins in the axillary region showed post-thrombotic deformity but the flow was mainly unrestricted. At angiography not only superficial but also deep veins in the forearm were filled early (fig.). The artery and the vein were ligated distal to the fistula, the swelling of the arm decreased, and 10 days later the volume of the left arm had diminished by 490 ml.



Frontal and lateral views of forearm after arterial injection of contrast medium. Arrows show concomitant deep veins filled with contrast medium via the arteriovenous fistula.

Filling of the deep veins has not been seen in normal persons after injection of contrast medium into superficial veins or during brachial angiography in patients with a Cimino-Brescia fistula.[2] The presence of communicating veins between the superficial and the deep venous systems in the forearm has been postulated but not proved.[3] We have, however, observed such communications during dissections for the construction of Cimino-Brescia fistulae. Valves in these communicating veins normally prevent passage from the superficial to the deep veins, in contrast to the situation in the leg. In this patient these valves evidently were destroyed, since the deep veins were filled with contrast medium during angiography. Probably the acute swelling of the fistula arm in our patient was caused by destruction of the valves of the superficial veins distal to the fistula. At the same time the valves of the communicating veins were probably destroyed and venous pressures in the deep system increased.

When the arm of a patient with an arteriovenous fistula is compressed the superficial venous pressure rises within seconds and may reach the level of the systolic arterial pressure.[4] The application of venous compression for puncture of the veins in patients with a Cimino-Brescia fistula is rarely necessary and may cause bleeding from the puncture site and haematoma. A compression bandage to prevent bleeding is often applied after haemodialysis. Digital compression of the puncture sites, however, is sufficient in most cases. In any later bandaging care should be taken not to obstruct the venous flow and thus avoid the risk of a persisting oedema.—We are, etc.,

JAN GÖTHLIN
Department of Diagnostic Radiology,
ERIC LINDSTEDT
Department of Urology,
University of Lund, Sweden

1 Lindstedt, E., Lindergard, B., and Nilsen, R., *Lancet*, 1967, **2**, 512.
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Attitudes towards Disablement

SIR,—Having talked with many of my physically disabled contacts I am persuaded that by no means all are happy about the Tunbridge Report.[1] It is my considered opinion that instead of encouraging more new rehabilitation units such as those at Edinburgh and Southampton what money is available would be better used in providing, for example, increased facilities, both home- and hospital-based, for physiotherapy—and remembering that the primary need of the disabled is for the humanitarian approach. Let more funds be channelled into the provision of transport for the disabled (buses, for example) and some for more sporting facilities.

In other words, I believe rehabilitation demands a strictly pragmatic approach. The essential academic work such as bioengineering could well be done in a central rehabilitation research institution. The disabled themselves could then have primary care from their own general practitioner guided by periodic reports from the community physician, who would himself be in possession of individual reports from members of the rehabilitation team as applicable in a given case. These members include not only nurses and paramedical workers (occupational therapist, physiotherapist, social worker) but also a variety of voluntary workers who, in my opinion, constitute an invaluable if not essential part of the team. The role of hospital-based rehabilitation physicians and professors is, I think, very nebulous.—I am, etc.,

MABEL L. HAIGH
Collingham,
Wetherby, Yorks

1 *Rehabilitation*. Report of a Subcommittee of the Standing Medical Advisory Committee. London, H.M.S.O., 1972.

N.H.S. Superannuation—Purchase of Added Years

SIR,—It was agreed a long time ago that with effect from 1 October 1972 members of the N.H.S. superannuation scheme should have the right to purchase "added years" of reckonable service within certain limits and thus enhance their eventual retirement benefits. The statutory regulations to introduce this provision did not, however, come into force until 19 July 1974 (9 September in Scotland). Particulars are now available from N.H.S. authorities, and doctors who are interested should approach the authority with which they are in contract as soon as possible. For those already in the scheme the option to purchase added years remains open only until 19 July 1975 (9 September 1975 in Scotland).

The cost to an individual will normally depend on his or her age and income at the time of purchase. However, provided an application is made before 19 October 1974 (9 December 1974 in Scotland) the cost may be based on the age and income of the applicant on 1 October 1972 (or the date of joining the scheme if later).

Doctors will, of course, have to decide individually whether or not to purchase added years in the light of their personal circumstances and the advice of their accountants. However, it could obviously be very much to the advantage of a doctor who is contemplating the purchase of added years to apply without delay.—I am, etc.,

R. D. ROWLANDS
Chairman, Superannuation Committee
B.M.A.
B.M.A. House,
London W.C.1

Alternative Health Service

SIR,—Congratulations to Dr. P. Joan Bishop (17 August, p. 473) on a letter full of sound common sense which should be read by all who are connected with the N.H.S. and by all politicians.

Surely we must realize that the financial well-being of any profession and social service depends upon a prosperous business community. At present Britain has the worst inflation and worst trade deficit of any major country, and it would be a brave man who would count on any improvement next year. With the world-wide slowing down in economic growth there will surely be less rather than more government money available for the N.H.S., hence the urgent need to investigate alternative methods of finance.

Dr. Bishop's letter reminded me of the masterly writings of the late Dr. Ffrangcon Roberts (see 31 August, p. 582) on the cost of the N.H.S. In 1949 he was one of the few men to expose the fallacies of the Beveridge report and the concept of a "free" health service. I can do no better than quote his conclusions. "It can indeed be laid down as a law, that in a free economy the cost of medical treatment rises with the standard of living," and, again, "I believe that through ignorance and miscalculation in its preparation the cost of the Health Service has been grossly underestimated, that when in full operation it will be not less than £500m., and that in future years it will rise to an even higher figure. Whatever the exact figure, I am firmly convinced that at the present rate of expenditure it will involve us in national ruin."[1]

Prophetic words indeed when the sum of £500m. is now being demanded by the medical profession merely to stave off the collapse of the Health Service.—I am, etc.,

D. H. K. SOLTAU
Cheltenham

1 Roberts, F., *British Medcial Journal*, 1949, **1**, 293.