

N.H.S. has been spared heavy cuts in the Government's latest economies and it must brace itself to make its own savings, not simply in response to a national emergency but because the stimulus of vigorous self-control will help the Service to survive.

## Cardiogenic Dementia

FEW human afflictions seem more apt to generate an unsympathetic response from doctors than mental confusion in the elderly.<sup>1</sup> ARIE<sup>2</sup> says that many doctors and social workers "cannot formulate a 'psychogeriatric' problem in any other terms but as the need to get it instantly off their hands." Most human beings share an aversion to the combination of old age and mental illness, especially where there is degraded behaviour, wandering, or incontinence. But what doctors find much more distressing is the fact that they cannot meet the demands made by these patients and their exasperated families. General practitioners commonly say that their greatest troubles stem from referral of the senile. With an estimated 700 000 cases encroaching more and more on every form of hospital and community provision,<sup>3</sup> it is not surprising that the response of field workers tends to be guarded, at best. We badly need some new approach to the management of such patients.

It is said that many "crisis" referrals of old people to hospital can be dealt with successfully if the immediate problem is promptly identified.<sup>4</sup> Like King Lear,<sup>5</sup> some have been made mad by their social circumstances; more commonly, a mild dementing state has become much more severe in the presence of physical illness such as bronchopneumonia and heart-failure.<sup>6</sup> The main point of short-term hospital admission, apart from family respite, is to find and treat such conditions. Many elderly people then improve so considerably that they can be reintegrated into the community with day-hospital care or other appropriate support. This wide fluctuation in mental state in relation to physical condition and the demented brain's susceptibility to hypoxia<sup>4 7</sup> has prompted much research aimed at improving cerebral function.<sup>8</sup>

Most of the drugs promoted for this purpose are supposed to act by dilatation of cerebral vessels or by reducing the brain's need for oxygen.<sup>9</sup> It is disappointing that, as the *Drug and Therapeutics Bulletin* notes,<sup>10</sup> "None can be recommended for routine use", though the occasional patient seems to respond. Are the cerebral changes of senile dementia a useful indication of intrinsic advancing brain disease? In LIVESLEY's view,<sup>11</sup> the plaques and neurofibrillary tangles may represent the final common picture of many cerebral affronts of different kinds over a long period, important among which could be episodes of subnormal cardiac output. Finding a high incidence of cardiac dysrhythmia in a number of elderly demented, he proposes that the early detection and treatment of these conditions might prevent intellectual deterioration in some of our older patients. This is closely akin to the conclusion reached by McALLEN and MARSHALL,<sup>12</sup> who found treatable cardiac dysrhythmia underlying a number of cases of recurrent transient cerebral ischaemia, half of which had previously been misdiagnosed. A clue was usually present on the electrocardiogram. They emphasised the importance of looking for a cardiac mechanism in conditions of disturbed brain function, as did ABDON<sup>13</sup> in a similar investigation (under the title *Cardiogenic Neurology*).

The effects of bradycardia on cerebral blood-flow and the electroencephalogram are impressive. On pacing cases of heart-block to a normal rate, SHAPIRO<sup>14</sup> recorded a 30% increase in cerebral blood-flow. In SULG's series,<sup>15</sup> a decreased cerebral blood-flow and slowing of electroencephalogram wave spectrum returned to normal on pacing, with obvious mental improvement. BENCHIMOL et al.<sup>16</sup> showed that extrasystoles, atrial fibrillation, and the paroxysmal tachycardias also lead to a considerable fall in blood-flow. **Since the ageing brain is highly sensitive to anoxia and since such cardiac abnormalities are very common in the elderly,<sup>17</sup> it is easy to imagine that senile dementia could often be aggravated or even precipitated by them.** In the prevention and management of mental disturbances in old people these observations are very important: the relation between heart-disease and dementia deserves joint research by cardiologists and psychiatrists. Perhaps, as LIVESLEY suggests, the time has come to substitute "brain failure" for

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3. Pasker, P., Thomas, J. P. R., Ashley, J. S. A. *ibid.* 1976, ii, 164.

4. Dunn, T., Arie, T. *ibid.* 1972, ii, 413.

5. Grey, M. *Mod. Geriatrics*, 1976, 2, 4.

6. Hodgkinson, H. M. *Common Symptoms of Disease in the Elderly*; p. 24. Oxford, 1976.

7. Davison, A. N. in *Action on Ageing* (Proceedings of Sandoz symposium held at Basle); p. 9. 1976.

8. Bowen, D. M. *ibid.* p. 12.

9. Siesjo, B. K., et al. in *Brain Dysfunction in Metabolic Disorders* (edited by F. Plum); p. 75. New York, 1974.

10. *Drug and Therapeutics Bulletin*, 1975, 22, 85.

11. Livesley, B. in *Action and Ageing* (Proceedings of Sandoz Symposium held at Basle); p. 54. 1976.

12. McAllen, P. M., Marshall, J. *Lancet*, 1973, i, 1212.

13. Abdon, G. *Acta med. scand.* 1975, 198, 455.

14. Shapiro, W., Chawla, N. *Circulation*, 1969, 39/40, suppl. 3, p. 184.

15. Sulg, I. A., et al. *ibid.* 1969, 39, 487.

16. Benchimol, A., et al. *Am. J. Med.* 1969, 46, 52.

17. Caird, F. I., Dall, J. L. C. in *Textbook of Geriatric Medicine* (edited by J. C. Brocklehurst). Edinburgh, 1973.

dementia, if only to remind us that, as with heart-failure and kidney failure, the cause may lie elsewhere in the body.

## BURST ABDOMEN

SURGERY to some cynics is the art of getting a patient well by skirting a series of preventable hazards. One of these is abdominal wound disruption—a complication fatal at worst and a serious nuisance at best, for, should all go well directly after resuture, there is both a prolonged hospital stay and a much increased risk of incisional hernia.

For long enough, and as a consequence usually of the retrospective evaluation of heterogeneous series of patients, surgeons have been persuaded that a low but steady rate of disruption (about 5–7%) is inevitable and that it matters not at all what suture material<sup>1</sup> or technique<sup>2</sup> are used. This inference is of course logically false: a small, but definite, effect of suture material or the method of its use could well be obscured by other factors which occurred sufficiently often, such as sepsis, malnutrition, or, as has been shown recently, the subtle and ill-understood effects of acute hæmorrhage.<sup>3</sup> Alternatively, *all* the methods used in series which show high disruption-rates may have as a common factor some procedural defect which increases the possibility of disruption when other unfavourable circumstances exist. That the latter is possible is suggested by the ability of some individual surgeons to achieve long series of major laparotomies running into hundreds and even thousands with vanishingly small rates of disruption (frequently less than 1%).<sup>4, 5</sup> The common feature of surgical practice displayed by such workers is the use of heavy (0 or 1 metric) non-absorbable sutures inserted with large bites which sometimes approach the size which experience has taught are commonly successful in resuture of a disrupted wound.

This experience has prompted surgeons to analyse the mechanical forces inimical to or responsible for wound disruption. A large bite of heavy material obviously distributes stresses on a larger suture/tissue interface (and thus reduces the force per unit area) than does a small fine neat stitch.<sup>6</sup> Now Jenkins<sup>7</sup> has taken the mathematical analysis a stage further by pointing out that, in the first few days of convalescence, increases in abdominal girth consequent on the common mild gaseous distension may lengthen a vertical wound by 30%. Therefore, if a continuous suture has been used and inserted tightly, tension at the suture/tissue junction must rise proportionately. When interrupted sutures are used the distance between bites will increase. By simple, but ingenious, techniques he has also shown that with continuous suturing the tension exerted rises exponentially—the smaller the initial bite, the greater the interval between bites and, in consequence of both, the

shorter the total length of suture relative to that of the wound. Young surgeons, learning their trade, also tend to exert more tension.

Though, as Jenkins points out, the surgical wound in man cannot be analysed by precise numerical measurement, his results convincingly suggest that for a continuous stitch the straight length of material should be at least four times that of the wound and the bites at least a centimetre deep and less than this apart. In seven cases of disruption in which it was possible to measure the length of suture inserted, the ratio was 2/1 or less including one continuous stitch which was shorter in straight length than the wound.

Big bites very loosely inserted challenge the accepted tenets of surgical practice. The proof must come from clinical experience. In fifteen hundred consecutive vertical abdominal incisions Jenkins has, by applying these principles with monofilament nylon as the suture material, had but one burst abdomen. Wound disruption after laparotomy, if it is truly 5% up and down the country when the conventional techniques are used, must constitute a substantial surgical burden. Jenkins's analysis points to the view that burst abdomen is nearly always mechanical in origin; that it *can* be prevented; and that, if surgeons can think mechanically while they sew and suppress their prejudices about the choice of suture material, it *will* be prevented.

## THE HERITAGE OF SIR AUBREY LEWIS

THE death in 1975 of Sir Aubrey Lewis robbed British psychiatry of the man who, by common consent, was its most eminent and illustrious representative during the post-war era. The breadth of his scholarship, his unique brand of creative scepticism, and his manifold attainments in research, teaching, and administration together represented an extraordinary individual contribution to the growth, evolution, and reputation of one of medicine's younger and more fragile specialties. One of his signal achievements lay in the conception and development of the Institute of Psychiatry, and so it was entirely fitting that on Nov. 18 a memorial day in his honour was held there under the ægis of the Royal College of Psychiatrists. The occasion was marked by formal contributions from a small group representative of the many people in psychiatry and its allied specialties, in Britain and abroad, who owe Lewis a professional and personal debt. Speakers from abroad included Prof. Alexander Leighton (Harvard) on the role of psychiatric epidemiology and Paul McHugh (Johns Hopkins) on the role of the hypothalamus in appetite regulation, while from nearer home Baroness Wootton assessed Lewis's seminal lecture "Health as a Social Concept" and Sir Denis Hill outlined the unique nature of the Institute itself. Dr David L. Davies, dean of the Institute in Lewis's day, described the beginnings of research into aspects of alcoholism, while Dr R. F. Hobson discussed the role of psychotherapy. Some unfamiliar aspects of Lewis's formative years in Australia were outlined by Prof. Michael Shepherd in the opening address and the closing contribution, on the accreditation and training strategy of the Royal College, was delivered by Prof. Kenneth Rawnsley, the dean of the College.

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3. McGinn, F. P. *Br. J. Surg.* 1976, **63**, 163.

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5. Spencer, F. R., Sharp, E. H., Jude, J. R. *Surgery Gynec. Obstet.* 1963, **117**, 235.

6. Dudley, H. *Br. J. Surg.* 1970, **57**, 664.

7. Jenkins, T. P. N. *ibid.* 1976, **63**, 873.