Severe reaction to diphosphonate

The suggestion of Dr A T Elliott and colleagues that skin testing for sensitivity to diphosphonates should be considered before these drugs are used therapeutically—for example, in Paget's disease of bone—(3 September, p 592) is not well founded.

Including the clinical trial phases, the diphosphonate disodium etidronate has been given by mouth for the treatment of Paget's disease throughout the world for nearly 20 years without any reports of allergic reactions. More recently both this diphosphonate[1 2] and other "second generation" diphosphonates, including dichloromethylene diphosphonate (clodronate),[3-5] disodium aminohydroxypropylidene-diphosphonate,[6-8] 4-amino-1-hydroxybutylidene-1,1-diphosphonate,[9] and aminohexane diphosphonate,[9] have been used extensively both orally and intravenously to treat Paget's disease, hypercalcaemia associated with malignancy, hyperparathyroidism, and osteoporosis without any serious allergic adverse effects. Even mild rashes, which may not have been a hypersensitivity reaction to diphosphonate, are rare and have been reported only in association with a particular formulation of disodium aminohydroxypropylidene-diphosphonate used by one investigator.[6]

It seems more likely that the allergic response reported by Dr Elliott and colleagues was a reaction to some other component in the injectable formulation of the radiopharmaceutical. At an incidence of allergic reactions of 4-50/100 000 skin testing before administration of radiopharmaceutical diphosphonates is questionable. It is completely unjustified before the therapeutic use of disodium etidronate, clodronate, disodium aminohydroxypropylidene-diphosphonate and the other new diphosphonates for Paget's disease of bone or hypercalcaemia associated with malignancy.

RICHARD E S GRAY

Department of Rheumatology,
Wexham Park Hospital,
Slough SL2 4HL

1 Kanis JA, Gray RES. Long-term follow-up observations on treatment in Paget's disease of bone. *Clinical Orthopaedics and Related Research* 1987;**217**:99-125.
2 Gray RES, Hamdy NAT, Urwin GH, Murray SA, Yates AJP, Kanis JA. Effective treatment of Paget's disease of bone with intravenous etidronate. In: Cohn DV, Martin TJ, Meunier PJ, eds. *Calcium regulation and bone metabolism—basic and clinical aspects*. Vol 9. Amsterdam: Elsevier, 1987:708.
3 Chapuy MC, Charhon SA, Meunier PJ. Sustained biochemical effects of short treatment of Paget's disease of bone with dichloromethylene diphosphonate. *Metabolic Bone Disease and Related Research* 1983;**4**:325-8.
4 Yates AJP, Percival RC, Gray RES, *et al*. Intravenous clodronate in the treatment and retreatment of Paget's disease of bone. *Lancet* 1985;i:1474-7.
5 Witte RS, Koeller J, Davis TE, *et al*. Clodronate. A randomised study in the treatment of cancer-related hypercalcemia. *Arch Int Med* 1987;**147**:937-9.
6 Mautalen CA, Casco CA, Gonzalez D, *et al*. Side effects of disodium aminohydroxypropylidene diphosphonate (APD) during treatment of bone diseases. *Br Med J* 1984;**288**:828-9.
7 Harinck HL, Papapoulos SE, Blanksma HJ, Moolenaar AJ, Vermeij P, Bijvoet OLM. Paget's disease of bone: early and late responses to three different modes of treatment with aminohydroxypropylidene bisphosphonate (APD). *Br Med J* 1987;**295**:1301-5.
8 Thiebaud D, Portman L, Jaeger P, Jacquet AF, Burckhardt P. Oral versus intravenous AHPrBP (APD) in the treatment of hypercalcemia of malignancy. *Bone* 1986;**7**:247-53.
9 Adami S, Bhalla AK, Dorizzi R, *et al*. The acute-phase response after bisphosphonate administration. *Calcif Tissue Int* 1987;**41**: 326-31.

Mediastinal haemorrhage complicating thrombolytic treatment

In their report Drs K P Suddes and R D Thomas make statements about the imaging of aortic dissections which are somewhat misleading (20-27 August, p 527). It is well recognised that a properly performed enhanced computed tomography scan is a more accurate method for detecting or excluding an aortic dissection than aortography. There is no reason for a patient who is suspected of having a dissection with a normal enhanced computed tomogram and a normal echocardiogram to then also undergo aortography. In patients who are ill and hypotensive, as described in this report, transfer to another hospital and the procedure of aortography, which requires multiple injections of large volumes of contrast medium, can only further aggravate their poor condition. It is not surprising that in this case aortography proved to be normal in view of the reported absence of a dissection on computed tomography.

G G HARTNELL

Bristol Royal Hospital for Sick Children,
Bristol BS2 8BJ

AUTHOR'S REPLY,—We should know that no test is 100% perfect; in a review a world authority on aortic dissection stated, "aortic angiography remains the most definitive method for confirming the diagnosis of aortic dissection. . . . The diagnostic accuracy of CT is in the range of 90%."[1] In our patient there was clinical suspicion of dissection as a cause of the sudden, spontaneous appearance of a periaortic soft tissue mass on computed tomography—presumably haemorrhage. After discussing the case with the regional cardiothoracic centre, at a consultant to consultant level, we thought further investigation was necessary.

Far sicker cardiac patients are transferred from district general hospitals to regional centres. Indeed, this is best done as soon as a diagnosis that suggests the need for urgent surgery is made. Delay for fear of aggravating the patient's condition is unnecessary and is likely to worsen the prognosis. Neither should aortography aggravate the condition; it is a procedure which "in skilled hands is well tolerated by even critically ill patients."[1]

On a more general note the question of which is the most appropriate diagnostic test for suspected dissection is important, but we did not make any statements about imaging the aorta. The test chosen depends on its availability and then, if possible, it should not be duplicated. This is the trouble with computed tomography, which appears to be slightly more sensitive than aortography (but "which is not without its limitations"[2]). Computed tomography is usually a 9 to 5 weekday service and it may not be available for acute cardiac emergencies. So 24 hour a day echocardiography in its various forms and aortography will continue to be needed.

R D THOMAS

Royal United Hospital,
Bath BA1 3NG

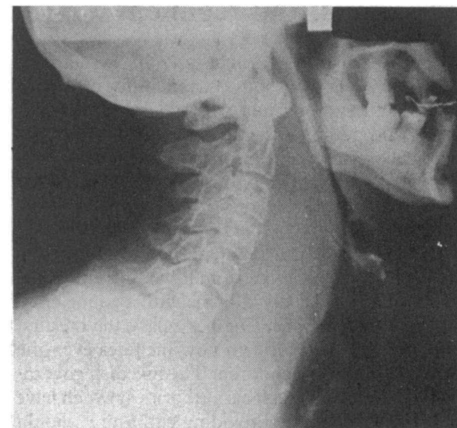
1 De Sanctis RW, Doroghazi RM, Austen WG, Buckley MJ. Aortic dissection. *N Engl J Med* 1987;**317**:1060-7.
2 White RD, Dooms GC, Higgins CB. Advances in imaging thoracic aortic disease. *Invest Radiol* 1986;**21**:761-78.

Drs K P Suddes and R D Thomas (20-27 August, p 527) encountered a rare complication, a mediastinal haematoma, in a patient receiving thrombolytic treatment for myocardial infarction. The diagnosis was based on a radiograph of the chest showing a widened mediastinum. They rightly point out that this complication may be more frequently encountered in the future, when myocardial infarction (and conditions mimicking it) are more widely treated by thrombolysis.

If the source of haemorrhage is the aorta urgent action is needed, but non-aortic haematomas are usually quickly absorbed even if they are quite extensive. It has also to be remembered that the anteroposterior view (taken on a portable *x* ray apparatus) may produce a distortion that simulates a widened mediastinum. If penetrating films are also taken that outline the tracheal air shadow (which may be displaced) more valuable further information may occasionally be gained.

In a case of non-traumatic aortic rupture the supracarinal part of the trachea was displaced to the right to such an extent that the left main bronchus became its main continuation (instead of the right), though the cervical trachea was still central; in a lateral film the dense ovoid opacity was seen to spread upwards anteriorly.[1] The operation, however, was not successful and the patient died.

In a case of spontaneous cervicomediastinal haematoma the lateral film showed that the trachea was displaced forward by 6·4 cm by the haematoma, which extended up to the base of the skull (figure).[2] The haemorrhage arose in the visceral compartment of the cervicomediastinal fasciae, which excluded an aortic origin. The patient was discharged home after one week.



Spontaneous cervicomediastinal haematoma in penetrating lateral film of the neck. Reproduced by permission from the "British Journal of Surgery"[2]

Taking penetrating films is a simple investigation that should be routine in such cases. The diagnosis is usually difficult and a high tech hospital may be some distance away.

FRANCIS SANDOR

Hartlepool Postgraduate Medical Centre,
General Hospital,
Hartlepool

1 Sandor F. Incidence and significance of traumatic mediastinal haematomas. *Thorax* 1967;**22**:43-62.
2 Sandor F, Cooke RT. Spontaneous cervicomediastinal haematoma. *Br J Surg* 1964;**51**:682-6.

Community care: Italian style

The brief report on the 10 year anniversary of the Italian Law 180 (3 September, p 575) was a timely reminder of the lessons to be learnt from this most daring of moves towards community care in psychiatry. In fact, the story of this experiment predates the law by many years. In many places the sudden imposition of the law and the subsequent closure of hospitals without community support has been a disaster.[1] In at least one town—Trieste, where the late Basaglia and his group worked—it has, however, been a success.[2] Largely based on a theoretical reading of Basaglia, Crepet and Pirella argued that Psichiatria Democratica has established a radical, new psychiatry.[3] Clinical practice, however, is in many ways similar to that in Britain. Psychopharmacological practice is much the same; the numbers of patients in institutions of one sort or another are broadly comparable. The difference in the new psychiatric service is both in the obvious dynamism of the practitioners who maintain a high

profile in the local community and in the less tangible but important attitudes of the staff. There is a commitment to a community based psychiatry among both the planners and the practitioners that goes far beyond the narrow concerns of closing down an asylum.

The most obvious result of a new flexibility among staff is the breaking down of formal barriers between them. In a small community based institution the distinction among doctor, psychologist, nurse, and social worker becomes blurred. At times in the centres in Trieste the distinction between staff and patients becomes blurred. Interestingly, this observation is accepted with pride in Italy but often with howls of derision in this country.

The old asylum in Trieste, as elsewhere in Italy, still exists. Instead of being sold off, however, as it surely would be in this country, it now houses work cooperatives, university buildings, and a crèche and is the site of weekly discos and film shows. In fact, during the summer the place to be for young Triestinans is the "Ex-OPP" (ex-psychiatric hospital). The whole community is in effect being brought into the mental health centre as well as the patients being discharged from it. The small mental health centres mentioned in the news item function well as drop in centres, day centres, and outpatient clinics at one and the same time. In addition, the boundary between the mental health centre and the group homes becomes indistinct as the staff move freely between both. Thus nurses are attached to a centre, and how many nurses need to be actually working with patients in the homes is decided daily. In Trieste closure of the hospital has resulted in more and not fewer facilities.

There are many deficiencies in Italy. There is no formal rehabilitation service and no occupational therapy. It is surely churlish, however, to concentrate only on what is lacking and to ignore the benefits stimulated by Law 180. In Trieste the psychiatric service sees the need to take the community forward with it. The point is that the professionals as well as the patients have been liberated from the hospital. On close questioning the Italians will admit that it is not that the psychiatric hospitals have closed but that their hold on the patients has been broken (K Jones, personal communication). It is the staff as well as the patients who have been deinstitutionalised.

S LOVESTONE

Accident and Emergency Department,
St Thomas's Hospital, London SE1

1 Jones K, Poletti A. Understanding the Italian experience. *Br J Psychiatry* 1984;**146**:341-7.
2 Lovestone S. The Trieste experience. *Lancet* 1986;ii:1025-8.
3 Crepet P, Pirella A. The transformation of psychiatric care in Italy: methodological premises, current status, and future prospects. *International Journal of Mental Health* 1985;**14**: 155-73.

Community based hospital discharge scheme

Ms Joy Townsend and colleagues (20-27 August, p 544) performed a good randomised controlled trial of a community hospital discharge system; I would, however, like to offer an alternative interpretation of their findings.

They showed that there was no difference overall in independence between the two groups at two weeks and three months after discharge. There was no significant difference in the number of patients who were not readmitted during the 18 months after discharge (165 in the care attendant group *v* 137 in the standard group; $\chi^2 = 1 \cdot 14$; $p>0 \cdot 5$). There was, however, a significant difference in the number of patients requiring more than one readmission. This was most noticeable in those requiring three or more admissions during the 18 months after discharge. This may indicate that the care attendant service was more efficient in maintaining at home the most frail or dependent patients. This is supported by the results of subgroup analysis, which showed that the care attendant service reduced significantly the number of readmissions in those over 85 and in those who lived alone. It would be interesting to see a comparison between the predischarge activity of daily living and mental test scores for those readmitted to hospital.

It would therefore be concluded that the use of the care attendant support scheme would be even more cost effective if it were reserved for those who are at high risk of readmission—namely, those who had a previous admission within the preceding 18 months, those who are over 85, and those living alone.

R N BALDWIN

Clatterbridge Hospital,
Wirral, Merseyside L63 4JY

The demonstration of Ms Joy Townsend and others that community support may prevent readmission of elderly patients suggests an important source of financial savings for health authorities.

The study recruited elderly patients admitted from a defined area and discharged to their own homes, regardless of the reason for admission. Some undoubtedly did not need the service. The people who benefited most were those with more than two readmissions over the 18 month period, and it would be helpful to know more about this subgroup. Possibly the majority were under the care of the geriatric or general medical departments. If so, care attendant services could be targeted more precisely.

Knowing the sort of patient who benefits could also help to explain why the benefit occurred. Was it due to the care attendant's ability to resolve problems relating to the discharge (such as the provision of aids), or to a strengthening of the informal support network of family and carers? It is important to try to explain the effect, as there might be additional ways in which readmission could be prevented in such patients.

The authors emphasise the financial benefits to the health authority of this service, though the effects on the elderly person and on the local authority should also be considered. They found that physical independence deteriorated slightly in the experimental group, while it increased in the control group. Although this difference was not statistically significant, it suggests that some elderly people may become unnecessarily dependent on extra care. It would have been interesting to know what was happening at 18 months in terms of physical independence, services received, and also the number of admissions to local authority residential care over this period.

ROBERT FOWLER

Oldchurch Hospital, Romford RM7 0BE

Ms Joy Townsend and colleagues clearly showed that the provision of intensive community support (care attendants) to elderly patients for two weeks after discharge from hospital significantly reduced the cumulative readmission rate of these patients (20-27 August, p 544). Their control group received "standard aftercare" from social services.

Although details of the use of social services were supplied, it remains unclear from the paper how soon after discharge standard aftercare was received. This is important because the authors showed that community input was valuable when provided immediately after discharge. Practising geriatricians are all too aware of the waiting lists in some areas for provision of home helps and meals on wheels and of the shortage of health visitors for the elderly. It is possible that immediacy of support is equally or more valuable than its intensiveness and that the same benefit may have accrued from reducing social service waiting lists for standard aftercare (if indeed such waiting lists existed in the Harrow social services area).

MARTIN J CONNOLLY

Department of Medicine (Elderly),
St James's University Hospital,
Leeds LS9 7TF

AUTHORS' REPLY,—Dr Connolly makes an important point. Harrow Health Authority has, however, been fortunate in working closely with a local authority which has given a priority to the elderly and which at the time of the study was providing meals and home care services for at least two weeks for any elderly patient leaving hospital where there was a need perceived by hospital staff.

The service was available whether the patient was receiving care attendant support or was in the control group. Need was reassessed and changed as necessary after the two weeks. The control patients were therefore not assigned to a waiting list for services, as is the case in many other districts. In fact, we thought that this new high level of standard aftercare might mask any effect of the care attendant scheme and that the benefits of such a scheme might be even greater for other districts. The care attendant support was, however, supplementary to standard services and had some different elements, notably rehabilitation and the mobilisation of non-statutory as well as statutory services and aids. Most importantly, it was available to all elderly patients and not only to those for whom the medical or nursing staff noted a need for a specific service.

We would agree about the importance of immediate provision of standard services but would argue that some rather different elements are also required to meet the needs of the elderly patient leaving hospital alone.

JOY TOWNSEND
MARY PIPER
A O FRANK
SANDRA DYER

MRC Epidemiology and Medical Care Unit,
Northwick Park Hospital,
Harrow HA1 3UJ

Occupational health research

Dr C E Gordon Smith (13 August, p 486) described some contributory factors in the decline of academic occupational medicine in the United Kingdom. Perhaps a fundamental cause lies in the selection and training of doctors who work in industry and from whose ranks are chosen the professional representatives and policy advisers to government and other bodies. Many doctors in industry are also in general practice, few have had substantive academic experience, and very few have any background in research. This process, as well as the historical separation of occupational medicine from mainstream health care provision, has contributed to the neglect of a role for academic occupational medicine in the workplace.

The contraction in the academic base is now at a critical point. If research and continuous interaction with other branches of medicine are not recognised as necessary for progress occupational medicine will no longer be seen as one of the clinical sciences. The inevitable decline will continue and eventually bring into question the justification for a separate medical discipline.

The potential hazards of the workplace are now complex and scientifically demanding. Many involve exposure to toxic chemicals, the prediction and detection of toxic effects, and assessment of risk. The effects of industrial and agricultural activities extend beyond the occupational environment to include the general public, but industry seems unable or unwilling to fund a comprehensive scientific resource for research. The role of environmental factors in disease is well recognised, but