hypertension may be compared. It is still common to use a too high a dose, making the new treatment look superior. We agree that some new drugs do not have any adverse metabolic effects, even in high doses. It should be remembered, however, that there are no clinical data showing that such new drugs reduce the mortality and morbidity of hypertension. Thiazides in doses that we consider high affect the risk of stroke in hypertensive patients—we now need to know whether lower doses of thiazides also prevent myocardial infarction and decrease related mortality.

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Splints

SIR,—In her article on splints Ms Patricia M Riley states that orthotists are usually apprentice trained by commercial companies. This statement is not correct: the professional training and education of orthotists and prosthetists in Britain are carried out by two establishments, the National Centre for Training and Education in Prosthetics and Orthotics, Strathclyde University, Glasgow (BSc honours), and the City of Westminster College, London (Higher National Diploma in orthotics and prosthetics).

The course provided in Strathclyde University is of four years' duration. The first three years of the course are devoted to academic study, interlinked with practical training in the fitting and fabrication of prosthetic and orthotic devices, including arm orthoses. The final year is devoted to clinical practice within the hospital environment under appropriate supervision.

The course provided by the City of Westminster College is of three years' duration. After obtaining the Higher National Diploma in orthotics and prosthetics the student is required to complete a further intern year and, on completion, is awarded a diploma in orthotics or prosthetics, depending on the chosen discipline.

Also mentioned in the article is the subject of suitable materials for wrist-hand orthoses. The orthotist should have the facilities to use both high and low temperature thermoplastic materials. The type of material used will depend on a number of factors including strength requirements, whether serial adjustment is required, and durability. I would agree that low temperature thermoplastics are suitable materials for many wrist-hand orthoses, but in many instances it is essential to use high termperature materials. Many occupational therapy departments do not have the facilities, or the expert knowledge, to provide orthoses made with high temperature thermoplastics; thus the orthotist is usually called on to provide these orthoses.

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Enalapril and metoprolol in diabetic nephropathy

SIR,—Dr S Björck and colleagues report significantly lower rates of proteinuria in patients with diabetic nephropathy treated with enalapril compared with those treated with metoprolol.[1] The study, however, looked only at effects in the short term, and no randomised controlled long term studies of such adverse effects of angiotensin converting enzyme inhibitors have been reported.

We performed a meta-analysis of studies of long term antihypertensive treatment in patients with overt diabetic nephropathy. Six studies met our criteria for analysis: specific antihypertensive treatment for more than 12 months, sequential measurements of glomerular filtration rate, and no duplication of patients in repeated publications.[2,3] Of 38 patients given angiotensin converting enzyme inhibitors, some also received diuretics and vasodilators. We compared these data with those on 39 patients who received cardioselective β blockers, diuretics, and vasodilators but no angiotensin converting enzyme inhibitors. Age and duration of diabetes did not differ between the groups.

Blood pressure was lowered to 146±16/90±7 mm Hg in the group given angiotensin converting enzyme inhibitors compared with 138±15/85±7 mm Hg in the group given other antihypertensive treatment ($p<0.01$). Albuminuria and proteinuria decreased less in the group given angiotensin converting enzyme inhibitors to a median of 67% (range 5 to 363%) of the initial values compared with a median of 42% (range 2 to 129%) in the group given other antihypertensive treatment ($p<0.04$).[2,4,5,7]

The fall in glomerular filtration rate was not significantly different between the groups—it fell by a median of 4·4 ml/min/1·73 m^2 (range 0 to 15) in the group given angiotensin converting enzyme inhibitors compared with 4·4 ml/min/1·73 m^2 (range −7 to 29) in the group given no angiotensin converting enzyme inhibitors.

The results of this meta-analysis confirm the conclusions of Dr Björck and colleagues that the decrease in proteinuria observed in patients taking enalapril depends primarily on the degree of blood pressure reduction. In the long run angiotensin converting enzyme inhibitors do not seem to have a specific adverse or beneficial effect on diabetic nephropathy. The quality of care for patients with hypertension and diabetic nephropathy depends primarily on early diagnosis and effective lowering and maintenance of blood pressure rather than on introducing new pharmaceutical principles.[6]

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Autonomic neuropathy after cisplatin based chemotherapy

SIR,—Dr Steen Werner Hansen recently showed some evidence of autonomic neuropathy in 10 out of 28 patients who had received six courses of cisplatin, vinblastine, and bleomycin for metastatic germ cell cancer.[1] No patient had postural hypotension. We observed postural hypotension in five (7%) out of 71 patients treated with cisplatin based combination chemotherapy for metastatic germ cell cancer.

Thirty two patients had cisplatin, etoposide, and bleomycin; 10 had cisplatin and etoposide only; and the remaining 29 had other cytotoxic drugs, including either vinblastine or vincristine, in addition to cisplatin, etoposide, and bleomycin. One heavily treated patient had severe postural hypotension, causing collapse, and required treatment with mineralocorticoids. In addition to postural hypotension, another patient had intermittent palpitations and dyspnoea on exertion. He was mildly anaemic (haemoglobin 109 g/l), and an electrocardiogram showed type 1, second degree atrioventricular block with a prolonged PR interval and premature beats. Two weeks later a 24 hour electrocardiogram was normal. After a blood transfusion his symptoms completely resolved. Another patient who complained of dyspnoea and dizziness on postural change did not show a postural change in blood pressure recordings, and subsequent investigations led to a diagnosis of pulmonary infarction.[2]

Our cases tend to support Dr Hansen's observation that some patients with metastatic germ cell cancer have autonomic neuropathy, presumably related to cytotoxic chemotherapy based on cisplatin. The origins of autonomic neuropathy in patients with cancer, however, are probably multifactorial, and cytotoxic drugs may be only one factor.[3] We are less convinced of Dr Hansen's view that sudden deaths in these patients have been wrongly ascribed to vascular toxicity and may in fact have been due to autonomic dysfunction. In the paper quoted by Hansen necropsies showed vital organ infarction and evidence of severe vascular disease in two out of five patients, and in two others there was strong evidence of severe vascular disease before death.[4] Detailed clinical investigations showing vascular toxicity during life have been reported,[5,6] and it has been suggested that vital organ vascular toxicity might be enhanced by cisplatin induced hypomagnaesaemia provoking coronary artery spasm.[6]

It is thus important to differentiate the dominant toxicity, vascular or neuropathic, in individual patients, recognising that they may coexist. Management might differ, depending on this differentiation.

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