from any tissue tension change around a vertebral joint or surrounding musculature. It is only when the sciatica and acute back definitely follow a specific lifting, twisting strain, and are accompanied by the neurological signs of toe weakness and dermatome arrangement of skin loss down the front and lower outer side of the calf and ankle, are we entitled to say that a displaced piece of intervertebral disc is the cause of the patient's acute back and sciatica. Even then how often has the orthopaedic surgeon the disappointment of carrying out the tiring operation of a laminectomy and to his surprise finding no displaced nor bulging disc, yet to his pleasure and chagrin his patient is cured of the sciatica. The explanation must be that the anaesthetic caused relaxation of the patient's spinal muscles and any minor subluxation reduced itself, or else his assistant's retractors pulled upon and freed a nerve root which was adherent to the back of a disc, the seat of a previous minor tear of the disc's attachment to the posterior common ligament.

The authors say that only 10.6% of their cases had proved disc lesions; in Table IV they state that no cases came to operation. This must point to the efficacy of modern conservative measures—namely, rest in bed a week or so, the provision of lumbar spinal belts, and simple physiotherapy of hyper-extension exercises done after instruction at home. Occasionally hospital physiotherapy of spinal traction, manipulation, and even the application of a lumbar plaster jacket may be needed. These are the measures to cure the "acute back," and which are so adequately brought out in this instructive article—I am, etc.,

London W.1.

G. O. TIPPETT.

SIR,—I have read the article on acute back syndrome which appeared in the *B.M.J.* recently (9 July, p. 82) with special interest. In the early 1940s when I was a medical specialist in the Middle East Forces, "acute backs" were invariably referred to a physician in the first place. All my cases were treated with infiltration, deep and superficial, of all painful areas with local anaesthetic followed by vigorous kneading with the closed fist. Following this every patient got up off the examination couch with completely free movement and marched off symptom-free. These cases did not include those with pain referred to the groin or the buttock or down the back of the thigh.

My Welsh medical corporal, a former miner from South Wales, was most impressed by the speed with which an apparently crippled man, in severe pain, was made symptom-free and fit for duty. He suggested that I should set up in practice in South Wales, where I would make my fortune because "backs" were very common among the miners there. I am therefore surprised that this form of treatment is not mentioned in the treatment of index attack.—I am, etc.,

B.F.P.O. 660.

JOHN MACKAY-DICK.

Fees for Dental Anaesthetics

SIR,—The new scale of fees which came into operation on 1 July 1966 for N.H.S. dental anaesthetics administered by medical practitioners will do little to raise the standard of anaesthesia, which in dental surgeries has lagged many decades behind that prac-

tised in today's hospital service. For over twelve years the fees payable to the medical anaesthetist have been determined by an illogical scale depending upon the number of teeth extracted, without any consideration for the medical condition of the patient, the difficulties of the extractions, or the extra equipment and drugs provided by the trained anaesthetist in a bid to provide the safest anaesthesia in selected patients. We have almost arrived at the stage where the doctor has to equate his fee with his travelling expenses when called for an isolated dental anaesthetic down town, and his acceptance of this duty is generally a favour to his dental colleague, often at an inconvenient time. It is most disappointing to see this archaic fee scale perpetuated in 1966, with fees increased by one to five shillings, depending upon the number of extractions, a scale which is completely unrealistic when compared, for example, with that for N.H.S. domiciliary anaesthetics.

At this very moment it is alarming to learn that up and down the country many dentists, having attended a "week-end course," are thereafter applying their knowledge upon unwitting patients, with surely inadequate skill at venepuncture, and scant knowledge of the nature of the potentially dangerous drugs they are borrowing from the armamentarium of the modern consultant anaesthetist. It is to be wondered how many of them, owing to force of circumstance, are assuming the dual role of anaesthetist and operator, and what happens to the patient when suddenly an emergency situation arises.

In 1966 any patient undergoing general anaesthesia, whether in the dental surgery or in hospital, has the right to expect the services of a trained anaesthetist, and the authorities must urgently revise the fees payable for these services in order to attract the right men to the job. Otherwise our families may find themselves, in the future, in the hands of non-medical week-end-course anaesthetists—a situation which, in Britain today, would not be tolerated in any other branch of surgical treatment.—I am, etc.,

Cheltenham.

KELLYTH LLOYD OWEN.

Side-effects of Propranolol

SIR,—I have recently encountered two seemingly undocumented effects of propranolol that may prove of interest.

First, Inderal (propranolol) therapy in an insulin-treated diabetic patient may rob him of the customary warning features of any hypoglycaemic episodes, the propranolol being employed in this context for the management of coexisting angina pectoris. Clearly, Inderal-induced blockage of adrenergic beta-receptors will extinguish (or at least limit) tachycardia—one component of the sympathetic response—and will permit the patient to plunge into hypoglycaemia, unopposed by the customary glucose release from hepatic stores of glycogen.

J. R. Vane¹ has postulated the "cyclase system" as the probable chemical locus of the beta-receptor—the enzyme cyclase being triggered by adrenaline (or, skeletal muscle excepted, glucagon) to promote the formation from A.T.P. of a cyclic adenylate—which in turn serves, by reactivating phosphorylase, to accelerate glycogenolysis. It has been demon-

strated² that the catecholamines are not responsible for the increased secretion of growth hormone, triggered by a modest (insulin-induced) fall in blood glucose, that appears to be one of the most sensitive of the hormone-regulators of blood glucose homeostasis.

The second, and aetiologically elusive, action of propranolol was met in several males of over 60, with coexisting angina pectoris and intermittent claudication. These patients were much improved in respect not only of their anginal pain but also that of claudication.

A paradox is presented, since the fall in stroke and minute volume of the heart, inhibition of glucose release from muscle glycogen, deprivation of the arteries of the musculature of the "beta-mediated" vasodilator effects of adrenaline (to permit the unchallenged operation of its vasoconstrictor action; via the alpha-receptors) would all conspire to promote, rather than relieve, ischaemia in the muscles during exercise.—I am, etc.,

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Leicester.

REFERENCES

- ¹ Vane, J. R., in *Recent Advances in Pharmacology*, 3rd ed., J. M. Robson and R. S. Stacey, p. 108, Churchill, London, 1962.
- ² Luft, R., Cerasse, E., Madison, L. L., von Euler, U. S., Casa, L. D., and Roovete, A. (1966), *Lancet*, 2, 254.

Buzzer Ulcers

SIR,—Dr. R. M. Forrester's problem (30 July, p. 302) would seem to be caused by iontophoresis. The current density cannot be high enough to damage the skin, but if the current flow is in the right direction conditions will be ideal for the transfer of metal ions into the skin. The mother's observation of a metal deposit on the skin seems to me to be highly significant, and night urine is an excellent electrolytic solution.

Reversing the polarity of the battery is probably such a simple solution that it cannot be correct, but it should be possible to determine the direction of the net current flow with an oscilloscope.—I am, etc.,

P. F. PLUMLEY.

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Multiple Malignancy

SIR,—Patients with more than one concurrent primary carcinoma are of some interest. The patient described below suffered from four primary carcinomata of different types in the space of eighteen months, a short enough period to conclude that they may have existed concurrently.

Mr. A. B., a retired farmworker aged 75, was first noticed to have two or three malignant skin lesions of the face among a large number of seborrhoeic warts in August 1964. Having refused surgical intervention, he submitted to irradiation, and in the opinion of the consultant radiotherapist there were present two basal cell carcinomata and one larger squamous cell carcinoma—unfortunately these could not be histologically proved. These lesions cleared well after irradiation, but in November 1965 a recurrence was biopsied in the centre of the old squamous tumour, which proved to be a basal