Laboratories, Dr. Brian Scales), the usual therapeutic level being about 1.5 µg/ml.¹ To our knowledge these are the highest values reported in man so far.

Possibly any beta-blocker may cause heart failure in a patient whose myocardial performance depends critically on sympathetic drive. However, practolol seems to be less dangerous than others in this respect, and in normal therapeutic doses causes only modest reduction of cardiac output.² Practolol has been shown to possess some sympathomimetic activity. Its positive chronotropic activity may explain why the pulse rate fell relatively little and definite bradycardia did not occur in the case presented here. This may explain, partly at least, why the patient's heart condition did not deteriorate. Another possible explanation could be the less pronounced effect of practolol on myocardial contractility.

This case illustrates the low toxicity of practolol and its modest cardiodepressive effect which has proved valuable in the treatment of patients with supraventricular arrhythmias and rapid ventricular rates after myocardial infarction and cardiac surgery.—We are, etc.,

PEKKA KARHUNEN
GOTTFRIED HÄRTEL

University Central Hospital,
Helsinki, Finland

¹ Fitzgerald, J. D. F., and Scales, B., *International Journal of Clinical Pharmacology*, 1968, 1, 467.
² Sowton, E., Balcon, R., Cross, D., and Frick, H., *British Medical Journal*, 1968, 1, 215.

Intestinal Motility and Absorption

SIR,—I was interested in the study by Dr. J. Nimmo and others (10 March, p. 587) demonstrating impaired absorption of paracetamol after the administration of propantheline and enhanced absorption after metoclopramide, especially as this apparently conflicts with a recent report from Helsinki¹ that the absorption of digoxin is decreased by metoclopramide and increased by propantheline. Unfortunately the techniques of the two studies are dissimilar and it is difficult to make valid comparisons.

I am beginning to suspect that absorption from the gut of a normal person is decreased by drugs which either increase or decrease motility and that the individual's normal gut motility gives optimal absorption. In Dr. Nimmo's study the highest plasma levels of paracetamol were in the convalescent volunteers. When they were given propantheline absorption of paracetamol decreased. The second group of subjects was chosen because they were known to have abnormal and slow gastric emptying. When given metoclopramide intravenously absorption of paracetamol increased—I suspect because motility was returned towards normal.

In a study of the absorption of xylose in patients with normal gastrointestinal function² I found that 20 mg of metoclopramide reduced absorption in eight out of 10 subjects, the mean decrease in xylose excretion in the urine being 15.9% ($P < 0.0125$). After an intravenous injection of 0.6 mg of atropine nine of 12 subjects had a decreased absorption, the mean decrease in xylose excreted in the urine being 18.7% ($P < 0.001$). These studies, though crude and simple, tend to confirm that normal motility gives optimal absorption. Other results suggest, however,

that in disease states these drugs, if they alter motility towards normal, enhance absorption. In five of a group of 11 myxodematous patients the absorption of xylose was increased by metoclopramide, and in one patient with carcinoid syndrome 15 mg of propantheline given intramuscularly increased the xylose excretion in the urine from 0.86 to 1.35 g.—I am etc.,

M. J. KENDALL

Department of Clinical Pharmacology,
Queen Elizabeth Hospital,
Birmingham

¹ Manninen, V., Apajalahti, A., Melin, J., and Karesoja, M., *Lancet*, 1973, 1, 398.

² Kendall, M. J., M.D. Thesis, University of Birmingham, 1971.

Early Diagnosis of Nephroblastoma

SIR,—In your leading article on this topic (10 March, p. 567) you state that it is important to identify the group of neonatal renal tumours which have been called fibrosarcoma or congenital mesonephric nephroma, and you continue: "The importance of identifying this group is to prevent the infant from receiving radiotherapy and chemotherapy." The implication is that if a true nephroblastoma (Wilms's tumour) is diagnosed in early infancy it is reasonable to include radiotherapy and chemotherapy as part of the management.

It would be a pity if this impression were not corrected, for now there must be few teams dealing with embryonal tumours who would recommend in infants under one year of age any treatment other than surgery. The exception must be made of those unusual cases in which there is undoubted spread, local or distant, at the time of operation.—I am, etc.,

R. B. ZACHARY
F. HARRIS

Children's Hospital, Sheffield

Ultrasonic Detection of Deep Vein Thrombosis

SIR,—As experienced users of the ultrasonic Doppler technique for the detection of deep vein thrombosis, who have performed tests on over 650 patients in the past 2½ years, we should like to make two comments on the paper by Mr. O. B. Williams and others (3 March, p. 517).

(1) The authors state that the high frequency (10 MHz) focused ultrasonic beam of the Parks Model 802 or 806 instrument has several advantages over "other models used in similar studies." Our experience of both the Park Model 806 and the Sonicaid Model D205 have led us to believe that the broad beam and lower frequency (2 MHz) of the Sonicaid is the more useful. Inclusion of the relevant vein in the broad beam is almost automatic if the Doppler signal from the adjacent artery is located. The test thus becomes much easier to perform for even the comparatively inexperienced user and false positive results arising from failure to include the vein in the beam are avoided. The greater penetration of the lower frequency of the ultrasound beam also enables the test to be performed routinely up to the level of the iliac veins.

(2) The results reported appear to contradict the author's own statement that "The experienced observer using the 806 direc-

tional machine can diagnose thrombotic lesions of the calf veins." It is our opinion that the existence of the plexus of veins in the calf results in transfer of blood through collateral pathways when individual veins in the calf are thrombosed. Consequently the flow at the level of the popliteal or femoral veins resulting from a calf squeeze will not usually be affected by a single occluded calf vein. Only widespread occlusion of the calf veins or occlusion at the level of the popliteal vein can be detected with any certainty.—We are, etc.,

R. D. MOORE
W. I. J. PRYCE
J. H. TODD

Regional Medical Physics Department,
Weston Park Hospital,
Sheffield

Cubital Tunnel External Compression Syndrome

SIR,—The paper by Messrs. T. G. Wadsworth and J. R. Williams (17 March, p. 662) prompts me to warn orthopaedic surgeons to be cautious before making this diagnosis on an immigrant from a country where leprosy is endemic. The ulnar nerve is the commonest peripheral nerve to suffer damage in leprosy. The patient may present with what may seem to be a typical entrapment neuropathy even in the absence of skin lesions, and the diagnosis will be missed if thickening of the nerve in the upper arm, immediately proximal to the cubital tunnel, is not noted.

As leprosy changes are within the nerve, surgical transposition is unlikely to prove of value. On the basis that repeated trauma will aggravate such changes, however, it has been suggested¹ that this operation will benefit a small minority, who can be selected on the following criteria: (1) presence of a small interval between the olecranon and the medial epicondyle of the humerus (25 mm or less with the elbow extended), and (2) increase of this interval by more than 50% with the elbow fully flexed.—I am, etc.,

W. H. JOPLING

Hospital for Tropical Diseases,
London N.W.1

¹ Srinivasan, H., and Namasivayam, P. R., *Indian Journal of Medical Research*, 1971, 59, 1385.

Injury on the Football Field

SIR,—The present laws of rugby football permit the use of replacements in matches in which a national representative side is playing, "only when, in the opinion of a medical practitioner, the player is so injured that he should not continue playing in the match." Even at international level the emphasis seems to be whether the player can return, rather than whether it is advisable in the immediate and ultimate interest of the same player. In recent weeks, I have seen several match incidents in which players have returned to play and faced the likelihood of more grievous injury because substitutes are not yet permitted in county championship and other richly competitive games. The pressure is always on the injured player—self-applied, maybe, but inculcated by long tradition—to return to the field of play, given half a chance by medical