I am sure this communication problem has been aired in these columns before but it seems to have done little good.

A P PRESLEY

Dorridge,
Solihull, W Midlands

Prevalence of primary and secondary hypertension

SIR,—We have read with interest the report of Dr Göran Berglund and others (4 September, p 554). While agreeing with the sentiments expressed in this article concerning hypertensive men in the middle age group, we believe that the methods employed in the investigation and the data from which the conclusions were drawn are open to question.

(1) Screening for renal artery stenosis was performed on 287 men, with four cases diagnosed, giving a prevalence of 1.4% in the screened group, not 0.6% as stated.

(2) Despite the statement that "renography as a screening instrument for renovascular hypertension cannot be recommended" this technique was used as the primary means of investigation for renal artery disease. Isotope renography at best diagnoses only 85% of these lesions.¹ Thus in a group of 689 patients up to 103 may have false-negative results, or in 287 patients 43 cases may be missed. While not suggesting that these figures are likely, we wish to illustrate the possible statistical error in the methods used.

(3) We agree, although not from the data presented by the authors, that population screening for renal artery disease is unwarranted² but agree with McNeil and Adelstein³ that "there is some potential benefit to the identification and surgical treatment of patients with renovascular disease. . . . The patients who appear most likely to benefit from surgical treatment are those not likely to follow a medical regimen." Surgical management also is of value to patients unresponsive to a medical regimen and to those with severe stenosis or severe hypertension.⁴ When reviewing statistical data one must not ignore the potential benefits of a positive diagnosis and effective management to the individual patient.

WALTER M KIRKENDALL
JEREMY J HAMMOND

Hypertension Division,
University of Texas Medical
School,
Houston, Texas

¹ McNeil, B J, et al, *New England Journal of Medicine*, 1975, **293**, 216.

² Ferguson, R K, *Annals of Internal Medicine*, 1975, **82**, 761.

³ McNeil, B J, and Adelstein, S J, *New England Journal of Medicine*, 1975, **293**, 221.

⁴ Hunt, J C, and Strong, C G, *American Journal of Cardiology*, 1973, **32**, 562.

Plasma cyclic AMP response to glucagon in liver disease

SIR,—We read with great interest the paper by Dr T F Davies and others (17 April, p 931) on the role of cyclic adenosine-3', 5'-monophosphate (cAMP) in differentiating surgical from non-surgical jaundice.

We have had the opportunity to study the levels of cAMP in newborn infants with abnormally high plasma bilirubin concentrations. These levels proved to be unreasonably high and considerably greater than those of non-jaundiced newborns.¹ The method we

used was that of Gilman,² a competitive protein-binding method similar to the method used by Dr Davies and his colleagues. We have further investigated the effect of bilirubin on protein kinase activity³ and found that bilirubin inhibits the binding of cAMP to protein kinase. This inhibitory effect of bilirubin has been proved to be competitive.

To comment on the work of Dr Davies and his colleagues, we wonder if the high basal values of plasma cAMP and the abnormal response to glucagon reported were the results of increased plasma bilirubin values. Table I of their paper shows that all their patients had abnormally high levels of bilirubin. We have found (unpublished data) that high values of cAMP are constantly found in the plasma of patients with high levels of bilirubin. When the bilirubin has been extracted with ether, however, levels of cAMP are found which are within normal limits (see figure).

Levels of plasma cAMP of full-term and premature newborn infants with different concentrations of bilirubin.

Conversion: SI to traditional units—cAMP: 1 nmol/l $\approx$ 0.03 μ g/100 ml. Bilirubin: 1 μ mol/l $\approx$ 0.058 mg/ml.

In conclusion we would suggest that further investigations must be carried out on the patients studied by Dr Davies and his colleagues before the abnormal cAMP response to glucagon can be established as a diagnostic test in differentiating surgical and non-surgical jaundice.

A CONSTANTOPOULOS
N MATSANIOTIS

First Paediatric Clinic of Athens
University,
"Aghia Sophia" Children's Hospital,
Athens, Greece

¹ Constantopoulos, A, Karaboula, K, and Matsaniotis, N, *Archives of Disease in Childhood*, In press.

² Gilman, A G, *Proceedings of the National Academy of Sciences of the USA*, 1970, **67**, 305.

³ Constantopoulos, A, and Matsaniotis, N, *Cytobios*, In press.

Treatment of axillary hyperhidrosis

SIR,—Further to Dr I B Sneddon's letter (11 December, p 1447) I would like to confirm the efficacy of 20% aluminium chloride hexahydrate solution as a treatment for axillary hyperhidrosis. There are at least 10 patients at the Liverpool Royal Infirmary who have benefited from this application following failure of other standard methods.

However, these patients were all successfully

treated without the need for polyethylene occlusion. Twice-daily topical application for one week decreasing to once or twice weekly has produced satisfactory results in all patients to date. A primary irritant eruption is a common complaint in the first days, but this does not usually recur following a 48-h break in therapy.

G A R PRICE

Brecon, Powys

Tetracyclines in the elderly

SIR,—With reference to your expert's answer to the question on tetracyclines in geriatrics (4 December, p 1378) am I wrong in believing that the physiological deterioration of renal function in the elderly makes the tetracyclines—with the exception of doxycycline—undesirable if not contraindicated in a geriatric ward?

G SCHOENEWALD

London W1

* * * Our expert writes: "Your correspondent is right in that doxycycline is the only tetracycline which does not raise the blood urea and may be safely given to those with renal failure. Other tetracyclines cause elevation of the blood urea level by increasing the rate of breakdown of protein. In a few rather rare cases, usually associated with degraded tetracycline, a Fanconi-like syndrome has been noted. Although many old people have decreased renal function, they do not all have incipient renal failure and it would be going too far to say that doxycycline is the only safe tetracycline for the elderly. Most physicians will have had experience of the widespread safe use of tetracycline, particularly in the early 1960s, but the point made by your correspondent is, in general, valid."—Ed, *BMJ*.

Microbiological samples from the vulva

SIR,—The polystyrene foam sponge used by Professor W Brumfitt and his colleagues in their study of the vulval flora (18 December, p 1471) is undoubtedly an excellent microbiological sampling material. Using a similar method for specimen collecting in female genital infections my colleagues and I found that the sponge absorbed at least three times as much secretion as ordinary swabs; in addition, delicate organisms such as gonococci survived considerably longer than on charcoal-coated swabs.¹

However, Professor Brumfitt and his colleagues describe a contact-transfer procedure using this material, and both the advantages and disadvantages of such procedures must be fully appreciated. They are well adapted to qualitative studies and provide valuable "maps" of surface organisms in their original spatial relationship. Apart from plastic sponge, velvet pads, agar discs, and adhesive cellulose tape (the latter being suitable only for the drier and more resilient skin surface) have all given useful qualitative information in this way.² Unfortunately, the statement by Professor Brumfitt and his colleagues that their sponge transfers allow bacteria to be adequately quantified is unlikely to be borne out by detailed comparative studies. The yield of micro-organisms from such a transfer is very low; the closely comparable velvet pad, when moistened, transfers to a nutrient agar surface