arises with false calls from patients but rather the reverse in that severe chest pain lasting 20 minutes or longer is reported neither soon enough nor frequently enough.

B J SPROULE

Coldstream,
Berwickshire

Allergic reaction to chlormethiazole

SIR,—I noted with interest the reports of allergic reactions to chlormethiazole (Heminevrin) by Dr A A Khan (6 November, p 1105) and more recently by Drs N A Halstead and J S Madden (25 December, p 1563). In both instances quoted the dose form referred to was the capsule, in which it is known that the colouring agent tartrazine is used to provide the characteristic yellow appearance.

Among reactions listed to tartrazine are generalised pruritus,¹ generalised urticaria,¹⁻⁴ oedema of the lips and tongue or uvula,¹ vascular purpura,² and severe asthmatic attacks.³ It is possible to speculate that these patients would not have reacted in the same way to the alternative uncoloured white tablet distributed by the same manufacturer.

G R WEEKS

Pharmacy,
Royal Hospital,
Sheffield

¹ Lockey, S D, *Annals of Allergy*, 1959, **17**, 719.

² Creip, L H, *Journal of Allergy and Clinical Immunology*, 1971, **48**, 7.

³ Juhlin, L, et al, *Journal of Allergy and Clinical Immunology*, 1972, **50**, 92.

⁴ Michaelsson, G, and Juhlin, L, *British Journal of Dermatology*, 1973, **88**, 525.

Antibodies to spermatozoa

SIR,—The discussion of the immunological sequelae of vasectomy in your leading article on this subject (2 October, p 774) requires comment.

While certain types of antibody to sperm are detected in normal children (not adults) with an incidence approaching 90%,¹ this need not obscure the importance of substantial increases in other types of antisperm antibody after vasectomy. The 86% incidence in children was attributable to two specific types of antibody detected by immunofluorescence and these types were found to cross-react with antigens of common micro-organisms.¹⁻² Presumably these antibodies resulted from exposure to infectious agents, not to sperm. In considering the effects of vasectomy comparisons should be made between the same types of antibody.

Data on the frequencies of specific types of antisperm antibody before and after vasectomy are now becoming available from several prospective studies. These studies are in agreement that (1) sperm-agglutinating antibodies occur in low titre in 2-5% of men before vasectomy and in higher titres in 55-75% of men within a year after vasectomy³⁻⁵; (2) sperm-immobilising antibodies occur in low titre in 1-2% of men before vasectomy and in higher titres in 30-60% of men within a year after surgery³⁻⁵; and (3) several types of antibody detected by immunofluorescence also increase in frequency after vasectomy, some from a very low prevasectomy incidence and others from a higher baseline.⁵⁻⁶ The immunoglobulin nature of all of these antibodies has been demonstrated.¹⁻⁷ Contrary to the suggestion in your article there is actually quite

good agreement among different laboratories when the incidences of specific types of antibody are compared.

You suggest that immune responses to sperm may result from inflammatory or atrophic changes in the testis after vasectomy. However, it seems more likely that such responses may result from small ruptures of the occluded epididymis or vas deferens and formation of sperm granulomas. This hypothesis is supported by data on internal pressures in the epididymis and testis⁸⁻⁹ and the occurrence of focal ruptures of the epididymis or vas¹⁰ in vasectomised animals and on the frequency of sperm granulomas in vasectomised men.¹¹

No clinical effects of antisperm autoantibodies have been demonstrated in vasectomised men, but Bigazzi¹² has documented the occurrence of immune complex disease of the testis and kidney in vasectomised rabbits with high antibody titres. The relevance of this finding to other species, including man, remains to be determined, as do other possible consequences of immune responses to vasectomy.

RUTH CROZIER

Center for Population Research,
National Institute of Child Health
and Human Development,
Bethesda, Maryland

¹ Tung, K S K, et al, *Clinical and Experimental Immunology*, 1976, **25**, 73.

² Tung, K S K, *Clinical and Experimental Immunology*, 1976, **24**, 292.

³ Mumford, D M, and Ansbacher, R, personal communication.

⁴ Bernstein, G S, personal communication.

⁵ Rose, N R, personal communication.

⁶ Tung, K S K, *Clinical and Experimental Immunology*, 1975, **20**, 93.

⁷ Rose, N R, et al, *Clinical and Experimental Immunology*, 1976, **23**, 175.

⁸ Johnson, A L, and Howards, S S, *American Journal of Physiology*, 1975, **228**, 556.

⁹ Johnson, A L, and Howards, S S, *Biology of Reproduction*, 1976, **14**, 371.

¹⁰ Bedford, J M, *Biology of Reproduction*, 1976, **14**, 118.

¹¹ Schmidt, S S, and Morris, R R, *Fertility and Sterility*, 1973, **24**, 941.

¹² Bigazzi, P E, et al, *Journal of Experimental Medicine*, 1976, **143**, 382.

Effect of cigarette smoking on thromboembolism

SIR,—We read with much interest the paper by Drs P A Emerson and P Marks (1 January, p 18) on the prevention of thromboembolism after myocardial infarction. We were in particular interested in their observations on the lower incidence of deep vein thrombosis (DVT) after myocardial infarction in cigarette smokers. We now write to point out that, in a recent paper (16 October 1976, p 910) in which we gave an account of the preoperative prediction of postoperative DVT after gynaecological surgery, we found that 48% (50 of 104 patients) of those who did not develop postoperative DVT were cigarette smokers but only 25% (5 of 20 patients) of the DVT-positive patients were smokers. The "protective" effect of smoking in patients at risk to DVT clearly extends beyond those who suffer myocardial infarction and is a phenomenon worthy of further study. In their penultimate paragraph Drs Emerson and Marks suggest that "patients who enter a coronary care unit with myocardial infarction may be drawn from two populations. One group may be intrinsically more susceptible to both arterial and venous thrombosis so will suffer myocardial infarction whether they smoke or not; the other group do not have this susceptibility to thrombosis but suffer a myocardial infarction because they smoke."

In the light of our observations in patients undergoing gynaecological surgery and the previous report from Pollock¹ on a higher incidence of postoperative DVT in non-smokers some other explanation for the effect of cigarette smoking must be found.

J K CLAYTON
J A ANDERSON
G P McNICOL

University Department of Surgery,
General Infirmary,
Leeds

¹ Pollock, A V, *British Medical Journal*, 1974, **3**, 522.

Multiple courses of ancrod (Arvin) therapy

SIR,—In an effort to reduce the incidence of chronic and recurrent thromboembolic disease we have treated several patients¹ with a new regimen² including ancrod (Arvin), oral fibrinolytics, and standard anticoagulants. One of these patients has had so far five courses of ancrod therapy without any anaphylactic reaction. The first 24 h of the ancrod therapy were covered, however, with six hourly injections of 100 mg hydrocortisone sodium succinate intramuscularly. The clinical results of the therapy were encouraging, antibody formation was negligible, and defibrination was always complete.

The patient, a 34-year-old woman, was admitted in February 1968 with left deep vein thrombosis and haemoptysis. She had taken oral contraceptives until 18 months previously. A diagnosis of pulmonary embolism was made and she was given intravenous heparin for one week followed by warfarin. As she deteriorated streptokinase was given one week later and she improved thereafter. Symptoms of thromboembolism recurred two days after her discharge and she was readmitted for a further course of heparin, despite which her clinical state became critical. Several expert opinions were sought and ligation of the inferior vena cava was considered. Then the account by Reid and Chan of ancrod appeared³ and therapy with this was given shortly afterwards. The improvement was soon apparent. The haemoptysis stopped within two days, as did the chest pain. The pain and swelling in the right leg improved during the following week and she was discharged on a maintenance dose of warfarin and Fearnley's regimen.⁴⁻⁵

In August 1968 she was readmitted with bilateral calf vein thrombosis and pulmonary embolism. A second course of ancrod was given and she improved promptly. She was discharged on warfarin and Fearnley's regimen, but anticoagulant control was poor as she did not attend regularly.

In December 1968 right calf vein thrombosis recurred, for which she was given a seven-day course of ancrod. She improved slowly and was again discharged on warfarin and Fearnley's regimen.

She remained quite well until October 1972, when she was readmitted with pain and swelling in the right calf, for which she was given the fourth course of ancrod with satisfactory improvement.

In June 1973 left calf vein thrombosis recurred and this was followed 10 days later by right-sided pleurisy and haemoptysis. The warfarin had been stopped in September 1972 as the daily dose had risen to 130 mg and anticoagulant control was poor. She was then given 10 days' intravenous heparin and the signs in the calf and chest resolved slowly. Signs of right calf vein thrombosis appeared again in January 1974. There was no response to heparin and a further course of ancrod was given. Venepuncture was difficult now and strict dosage of ancrod was impracticable. The full dose was therefore not given on 26 and 27 of January. The signs and symptoms of the right calf vein throm-

bosis did not improve as formerly and residual pain, though not troublesome, still remained in the following June.

The above case seems to be the first in which ancred has been given in repeated courses. Antibody formation, investigated by radioimmunoassay after the fifth course, was negligible. Hydrocortisone may have played some part in this because it is known that corticosteroids can suppress antibody formation under some conditions.⁶ In this patient the most useful benefit appears to be in reducing the incidence of thromboembolism after the ancred therapy. Our evidence for this is based on the number of thromboembolic incidents pre- and post-ancred administration. Though this point has not been established with certainty, it could, if confirmed, prove a valuable addition to our anticoagulant therapy.

NICHOLAS G KOUNIS

East Birmingham Hospital,
Chest Branch,
Birmingham

W HOWEL EVANS

Walton Hospital,
Rice Lane,
Liverpool

- ¹ Kounis, N G, MD Thesis, Athens University, 1976.
- ² Kounis, N G, and Evans, W H, *Angiology*, 1976. In press.
- ³ Reid, H A, and Chan, K E, *Lancet*, 1968, **1**, 485.
- ⁴ Fearnley, G R, Chakrabarti, R, and Hocking, E D, *Lancet*, 1967, **2**, 1008.
- ⁵ Fearnley, G R, Chakrabarti, R, and Evans, G F, *Lancet*, 1969, **1**, 617.
- ⁶ Raffel, S, *Immunity*, 2nd edn, p 279. New York, Appleton-Century-Crofts, 1961.

Acupuncture analgesia

SIR,—Mr D Stewart and his colleagues (8 January, p 67) do not mention whether, in the techniques they used to achieve acupuncture analgesia, "techi" had been experienced. This is the area in muscle proprioceptors where the needle must engage for maximal effect. It is the basis of the "needle test" used on patients in China a day or so before their operation. When I attended an analgesic clinic in a hospital in Taiwan both physician and patient were dissatisfied unless "techi" had been experienced. The sensation is a peculiar and characteristic one of numbness and distension. I found it to be distinctly unpleasant, but from the point of view of analgesia it is considered critical.

It seems to me that this could complicate a "controlled" trial since the patient's conscious acknowledgement that "techi" has been gained is essential.

FRANK S RICKARDS

Great Sutton,
Wirral, Cheshire

Placental transfer of IgG paraprotein with prolonged immunosuppression

SIR,—In 1970 we reported the transfer across the placenta of a maternal IgG paraprotein which gave rise to suppression of the circulating concentrations of IgG, IgA, and IgM in the infant.¹ The IgG and IgA concentrations were still low at two years. We report here the progress of child and mother during the subsequent seven years.

During the past four years the boy, who is now 9 years old, has had attacks of wheezing lasting 36 h or so four or five times a year,

usually following close contact with cats or grasses. Skin testing confirmed allergies to cat dander and grass pollens. He has been otherwise well and has shown no increased susceptibility to infections. The mother has remained symptom-free and she too has shown no increased susceptibility to infections.

The boy shows no remaining abnormality of immunoglobulin concentration. The mother's monoclonal paraprotein of IgG type κ has persisted but has shown no change in concentration (total IgG concentration 31 g/l). There has been no significant change in the concentration of IgA or IgM and there is no Bence Jones proteinuria. Thus it now appears that the monoclonal IgG which was transferred across the placenta from the mother in high concentration and caused prolonged suppression of humoral immunity was benign. The suppression has not persisted and has caused no lasting ill effects.

J M LITTLEWOOD
R B PAYNE

St James's University Hospital,
Leeds

- ¹ Littlewood, J M, et al, *British Medical Journal*, 1970, **4**, 94.

Laparoscopy and hysterosalpingography as tests of tubal patency

SIR,—I agree with Dr O A Ladipo (27 November, p 1297) that there is no doubt that laparoscopy offers a better assessment than hysterosalpingography of tubal pathology, especially in the ampullary region and when there are peritoneal adhesions. Also pocketing of the dye seen by hysterosalpingography in cases of tubo-ovarian masses can be confirmed by laparoscopy. But I do not think that laparoscopy could replace hysterosalpingography in cases of cornual block when a small portion of the cornual part of the tube is patent and reimplantation or recanalisation could be done. Also laparoscopy is not capable of visualising diverticulosis of the tubes seen in chronic infection or tuberculosis. Again, in some cases of bilharzial or tuberculous granulomas in which only a small portion of the tube is involved in the lesion causing obstruction and the rest of the tube is functional hysterosalpingography is useful in visualising the site of obstruction.

We are planning a report on tubal disease as evidenced by hysterosalpingography and laparoscopy in the near future. Meanwhile we consider that laparoscopy is complementary to hysterosalpingography rather than a replacement for the study of tubal pathology.

S KHUNDA

Medical City,
Baghdad, Iraq

Hospital practitioner grade

SIR,—The letter from Mr G Wilmot (22 January, p 235) on the hospital practitioner grade is part of the proper and healthy political debate which is taking place about the future of this grade. The general debate continues in the Central Committee for Hospital Medical Services, the General Medical Services Committee, and the Joint Consultants Committee, and will no doubt at some stage involve the Council of the BMA and the Representative Body itself.

I write now, however, only to comment on one area of concern expressed by Mr Wilmot—a concern shared by many hospital doctors. He refers to the statement in paragraph 25 of the Review Body's Sixth Report in which it was assumed "...that work of a more responsible nature would be involved than in either the medical assistant and assistant dental surgeon grade or in the part-time medical and dental officer grade."

The facts are that the Review Body had made a false assumption and I, too, have been unable to discover the exact source of this misunderstanding. Nothing, however, in either the written or oral evidence from the BMA to the Review Body would support this assumption and at a recent meeting with the Review Body the assumption was clearly refuted on behalf of the Association and the position clarified.

The fact is that there is no direct relationship between the degree of responsibility to be exercised by medical assistants, clinical assistants, or hospital practitioners—that is, some medical assistants and some clinical assistants will be more experienced and bear more responsibility than some hospital practitioners and vice versa. Among general practitioners working in hospital, however, it is likely that those who are graded (or eligible to be graded) as hospital practitioners will be more experienced than those who are clinical assistants.

Although I have been unable to discover the source of this misunderstanding, I am convinced that the Review Body now appreciates the situation quite clearly and I trust that this statement clarifies the position, as I am well aware that this error has led to considerable concern throughout the profession. In confining my reply to this one aspect of Mr Wilmot's letter, I recognise that many areas of concern surrounding the hospital practitioner grade remain, and I assure him that the CCHMS is well aware of these problems and will continue to seek fair and sensible solutions.

A H GRABHAM
Chairman,

Central Committee for Hospital Medical Services

BMA House,
Tavistock Square,
London WC1

Ethical responsibilities of NHS doctors

SIR,—The report of the joint working party on the ethical responsibilities of doctors practising in the National Health Service (15 January, p 157) is confused and contradictory.

"The profession," says the working party, "should not require the State to renege on its social responsibilities," but what do they mean by "the profession" and "the State"? "The profession" is the sum of its members, the doctors. "The State" has an abstract air, but in practice it consists of the Government of the day and the apparatus at its disposal. The Government in its turn consists of Ministers of the Crown, but in practice they are members of Parliament, which they have become only by being committed to a particular political party. They are not impartial; if they were they would not be members of Parliament. They determine the "social responsibilities" of the State and politicians of the left would not agree with those of the right on an interpretation of those responsibilities.