Dangers of Gas Fires

SIR,—Dr. J. Chapman (28 April, p. 243) rightly points out the dangers of using gas fires with inadequate ventilation because of draught-proofing.

In the training of gas fitters emphasis is placed on adequate flues and air supply for appliances. Doctors who suspect that patients are suffering from the effects of carbon monoxide can ask for atmospheric tests to be carried out. One of the benefits of conversion to natural gas is that unsatisfactory conditions are brought to light and remedied.—We are, etc.,

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ERIC FEAR

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Chief Medical Officer,
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Pilot Error

SIR,—In your leading article on Pilot Error (5 May, p. 258) you say that the largest proportion of aircraft accidents "are related to take-off and landing." You then quote air fatality figures on a mileage basis and almost make us believe that air travel is safer than road travel.

As every flight, however short, requires a take-off and a landing, aircraft accident statistics should relate to flights rather than to miles covered. When boarding a plane one would like to know one's chances per flight rather than per 10^7 miles. Purely on mileage one could probably prove that space exploration so far has been safer than car travelling.—I am, etc.,

G. R. GENOVESE

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Pruritus Vulvae

SIR,—Your leading article on pruritus vulvae (17 March, p. 628) omits one of the foremost causes of pruritis vulvae seen in gynaecological and general practice today—the wearing of tights by young and, to a lesser extent, old women. Although it is true that the related complaint is usually one of discharge, it is frequently accompanied by pruritus. I see an average of 10 patients per week in whom the wearing of tights is the cause or part-cause of symptoms.

Many women have excess cervical mucus, epithelial debris, and intermittent Bartholin secretion, without any infective element. Tights and other snugly fitting undergarments prevent normal evaporation of discharge at the introitus, and by their very nature increase heating of the external genitalia, causing added sweat gland secretion. Together the effect is to cause constant moistness to the vulval and perineal areas with redness and soreness, as is seen in breast and pendulous abdomen intertrigo. Even when trichomonas or monilia infections are present the symptoms will be increased by tights.

Tights are unhygienic, and the answer is to advise women not to wear them. Teenage girls and young women, I find, are loath to accept my advice in view of the high hem-lines of today; but many do accede to the suggestion that full-length hose with

"hold-up" tops, which reach almost to the groin, be worn instead. In older women the grip tops will be contraindicated in the presence of varicose veins, but these patients are more willing to accept the conventional stocking and suspender support.

The women's magazines would do their readers much good by "pushing" advertisements for stockings rather than tights.—I am, etc.,

CALUM N. MCFARLANE

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Stimulation of Corticotrophin Release

SIR,—We read with interest the report by Dr. J. J. Staub and others (13 February, p. 267) comparing the corticotrophin (ACTH) and corticosteroid response to lysine vasopressin, insulin, and pyrogen in man.

We have compared the pattern of release of ACTH in subjects without hypothalamic-pituitary disease following four different stimuli—insulin-induced hypoglycemia (I.I.H.), pneumoencephalography (P.E.G.), electric convulsion therapy (E.C.T.), and 8-lysine vasopressin (LVP)—which presumably release ACTH through different mechanisms. Plasma ACTH concentrations were determined by radioimmunoassay.¹

The mean increments ($\pm$ S.E.) in plasma ACTH (pg/ml) with these stimuli were as follows: I.I.H., 262 ± 50 ($n = 22$); P.E.G., 384 ± 60 ($n = 17$); E.C.T., 465 ± 105 ($n = 11$); and LVP, 406 ± 249 ($n = 3$). There were no statistically significant differences between the increments of ACTH released after the four stimuli (fig. 1). The

FIG. 1 Comparison of mean increment changes in plasma ACTH concentration following various stresses in subjects without hypothalamic-pituitary disease. (The figures refer to the numbers of subjects tested.)

peak in the mean plasma ACTH concentration occurred 45 min after the intravenous injection of 0.1 unit of insulin in the I.I.H. group, 45–60 min after beginning the P.E.G. group, 2.5 min after the electrical stimulus in the E.C.T. group, and 6 min after the intravenous injection of 5 units of LVP (fig. 2).

We conclude from our data that I.I.H., P.E.G., E.C.T., and LVP are potent stimuli resulting in ACTH release. The immediate discharge of ACTH after E.C.T., slightly delayed release after LVP, and prolonged delayed release after P.E.G. and I.I.H. suggest the utilization of different ACTH releasing mechanisms and the presence of a readily dischargeable ACTH pool in man.

FIG. 2 Temporal changes in plasma ACTH concentration in normal subjects after different stresses. The range of plasma ACTH concentrations in normal unstressed man is shown as the stippled band.

Our data are in slight disagreement with those of Dr. Staub and his colleagues in regard to vasopressin. This could be explained by the fact that their sampling time was less frequent than ours and the route of administration of vasopressin was different. Significant ACTH release is supported by the finding of a significant corticosteroid response in most of their subjects after vasopressin. Nonetheless, vasopressin appears to be a potent stimulus for ACTH release.—We are, etc.,

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DAVID M. COOK
JOAN OLSON

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¹ Rees, L. H., et al., *Endocrinology*, 1971, 89, 254.

Foster Homes for the Elderly

SIR,—In dealing with crisis situations in families where children are involved and need to be taken care of, the social services have lists of foster parents who will take children—infants to teenagers—into their own homes at a moment's notice. It is suggested that a parallel scheme be introduced to deal with the elderly where the patient needs to be taken care of for medical, surgical, or psychiatric reasons of a relatively minor nature, so as to avoid admission to hospital.

Most doctors will have experience of people who have the qualities to care for their elderly relatives. Even though this means considerable responsibility and hard work and the patient's general practitioner advises that admission to hospital is desirable so as to avoid the continued burden on the relatives they decline this advice simply because they have that extra gift to be able to cope with the situation. I believe these people and others would be prepared to take responsibility for any elderly person with mental and physical infirmity and thus admission to hospital, with the possibility of permanent hospitalization, could be avoided.

Your leading article (24 February, p. 434) quotes the Department of Health and Social Security's memorandum HM(72) 71¹ with regard to the elderly suffering from dementia and offers constructive criticism. It might be thought that HM(72) 71, together with parts II and III of the Mental Health Act 1959, is sufficient to deal with the crisis situations arising with the elderly. The scheme suggested in this letter would be a valuable addition and has the following advantages: (1)—action can be taken quickly; and (2)—the patient's mental condition need not be indicated—in order to qualify for action under parts II and III of the Mental Health Act the patient must be declared as suffering from mental disorder.

The social services could secure names of people willing to take on such tasks and, on the advice of the patient's doctor, he could be removed to their care. In emergency situations the move could be undertaken by the duty social services officer and the appropriate doctor be informed of this action.—I am, etc.,

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¹ National Health Service, *Services for Mental illness related to Old Age*, H.M.(72)71. London, Department of Health and Social Security, 1972.

Contraceptives on the N.H.S.

SIR,—I would support Dr. T. D. Richards (28 April, p. 244) in his view that we should have a health-orientated Health Service. Making the doctor a contraceptive shopkeeper is to debase his standing, increase his work load, and strike a further blow in favour of the "no-morality society." It is the sick who need the physician.—I am, etc.,

J. H. SCOTSON

Timperley, Cheshire

Penicillin in Syphilis

SIR,—To your admirable leading article on this subject (5 May, p. 259) may I be permitted to add two minor embellishments?

In the early enthusiastic days of penicillin era John Stokes, the doyen of American syphilologists, gave a timely word of warning: "From A.D. 1943, it will take a year to guess, two years to intimate, five years to indicate, a decade or more to know what penicillin does in syphilis."¹ And now we know. It also seems that the quest for therapy sterilisans magna (the cure of syphilis by a single dose of a harmless drug) initiated by Paul Ehrlich early this century has been realized.—I am, etc.,

R. G. SIMPSON

Perth

¹ Stokes, J. H., Beerman, H., and Ingraham, N. R. *Modern Clinical Syphilology*, 3rd edn., p. 1256. Philadelphia and London, Saunders, 1944.

Amoebiasis

SIR,—I was delighted to see the sane exposition of the amoebiasis situation by Dr. R. G. Hendrickse (17 March, p. 669) but would like to emphasize and enlarge on some points.

The disease state is probably as abnormal for the amoeba as it is for the host. Normally *Entamoeba histolytica* is a com-

mensal like the other intestinal amoebae—*E. coli*, *E. hartmanni*, *Iodamoeba butschlii*, and others. The Promethean concept originally propounded¹ but later discarded² by Dobell was unfortunately widely publicized on the other side of the Atlantic with unhappy results.³ Hoare⁴ finally disposed of the concept, and opinion has reverted to that propounded by Kuenen and Swellengrebel⁵ in 1913.

Distinction must be made between luminal amoebiasis and invasive amoebiasis. The only morphological criterion of invasive amoebiasis is the finding of haematophagous trophozoites. Diagnosis should not be based on the finding of cysts as these may be those of the harmless "Laredo" type, and in any case arise from commensal forms. Luminal amoebae do not give rise to antibodies, the detection of which forms a useful diagnostic point. As such antibodies persist long after invasion has ceased, their presence implies past or present tissue invasion. Their absence practically precludes either. A positive result is thus more significant in a non-endemic area such as Britain than it would be in a Durban African.—I am, etc.,

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- ¹ Dobell, C., *Journal of Tropical Medicine and Hygiene*, 1918, 21, 115.
- ² Dobell, C., and Neal, R. A., *Parasitology*, 1952, 42, 16.
- ³ Elsdon-Dew, R., in *Advances in Parasitology*, 6, ed. B. Dawes. London, Academic Press, 1968.
- ⁴ Hoare, C. A., *Experimental Parasitology*, 1952, 1, 411.
- ⁵ Kuenen, W. A., and Swellengrebel, N. H., *Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene, abt. I originale*, 1913, 71, 378.

Acute Pancreatitis in *Mycoplasma pneumoniae* Infections

SIR,—Drs. P.-A. Mårdh and B. Ursing (28 April, p. 240) described four cases of acute pancreatitis in which serological evidence of *Mycoplasma pneumoniae* infection was found.

When looking for serological evidence of viral infections in patients with acute pancreatitis we observed an unexpectedly high incidence of significant increases in *M. pneumoniae* complement-fixing antibodies during the illness.¹ Maximum increases in titre were from < 8 up to 256. Of 56 patients with acute pancreatitis, 18 showed a fourfold or greater increase, while 28 remained seronegative or had constant titres. In 10 patients the results varied from test to test, indicating anticomplementary activity between the antigen and antibody. No epidemiological fluctuation in the incidence of acute pancreatitis could be observed when hospital records for the preceding three years were analysed. No cases of pneumonia occurred among the patients positive for *M. pneumoniae*. Nor did very high complement-fixing antibody titres (< 2,000), though this is a not infrequent phenomenon in *M. pneumoniae* pneumonia. These data led us to the conclusion that in these cases the reason for the antibody response is not *M. pneumoniae* but rather some antigenically related mycoplasma.² Another explanation would be that during the course of acute pancreatitis cellular destruction leads to antigenic structures resembling those of *M. pneumoniae*. Anti-

bodies to brain and lung tissue are known to develop in *M. pneumoniae* infections,³ suggesting a resemblance between the antigenic structures of *M. pneumoniae* and human tissue components.

Drs. Mårdh and Ursing do not give their criteria for the diagnoses of pneumonia. It would be interesting to know whether the diagnoses were verified by x-rays in the survivors and, if so, whether the radiographs were characteristic. The other point of interest is whether the necropsy confirmed the diagnosis of mycoplasma pneumonia. In all cases an immune complex disease might explain the severely depressed respiratory exchange.—We are, etc.,

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- ¹ Pantzar, P., Leinikki, P., and Tykkä, H., *Biologie et Gastro-Entérologie*, 1972, 5, 601C.
- ² Leinikki, P., Pantzar, P., and Tykkä, H., *Scandinavian Journal of Gastroenterology*. In press.
- ³ Biberfeld, G., *Clinical and Experimental Immunology*, 1971, 8, 319.

Warfarin Dosage, Clofibrate, and Age of Patient

SIR,—During analysis of results obtained during long-term oral warfarin therapy over a five-year period it was found that there was no significant correlation between the patient's age and the warfarin dose needed to maintain the plasma activated partial thromboplastin time (A.P.T.T.) between 50 and 70 seconds, a previously suggested therapeutic range.¹ At the same time it was noticed that 25 patients with mitral valve disease treated with prophylactic warfarin required significantly less warfarin to produce this therapeutic response than did 255 patients treated with warfarin following venous thrombosis, myocardial infarction, or intracranial thromboses ($P < 0.002$).

When warfarin dosage was analysed in patients treated with both warfarin and clofibrate following myocardial infarction the dose needed to maintain therapeutic prolongation of the A.P.T.T. and prothrombin time was significantly smaller than in patients with myocardial infarction treated with warfarin alone, as previously reported² ($P < 0.001$). In addition, there appeared to be a significant inverse correlation between warfarin dosage and the age of the patient in 11 patients treated with warfarin plus clofibrate ($r = 0.77$, being more than twice the corresponding standard error of distribution, making $P < 0.05$).

In this very small series of 11 patients treated with both warfarin and clofibrate the youngest patient was aged 31 years and the oldest was 49, which does not give a wide range of ages. Perhaps other clinicians with larger series may be interested in this possible relationship between warfarin dose and patient age, since the addition of clofibrate to warfarin therapy does require careful adjustment of warfarin dose to reduce the risk of haemorrhage.³—I am, etc.,

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- ¹ Eastham, R. D., *British Medical Journal*, 1968, 2, 337.
- ² Oliver, M. F., et al., *Lancet*, 1963, 1, 143.
- ³ Eastham, R. D., *British Medico-Chirurgical Journal*, 1972, 87, 5.