

Further studies are being undertaken to examine the histology of the tattooed skin to see if that would throw light on the reason behind the peculiar response of the tattooed skin.—We are, etc.,

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1 Grolnick, M., *Annals of Allergy*, 1970, 28, 395.

### Multiple Sclerosis among Immigrants

SIR,—With the co-operation of the Multiple Sclerosis Society of Great Britain and Northern Ireland I am undertaking a study of the prevalence of multiple sclerosis (M.S.) among immigrants to England both from areas of the world where the disease is common, such as Ireland and Europe, and from areas of the world where the prevalence is thought to be low—Africa, Asia, and the West Indies. If immigrants from low-prevalence countries are immune to M.S. they should keep their low risk; if on the other hand they are not immune they should have a greatly increased risk of developing M.S. on immigrating to England. Most of the immigrants from low-prevalence areas have settled in Greater London and the Central Midlands and in these areas, with the permission of the research committees of the hospitals, over 9,000 M.S. case-folders have now been studied in order to ascertain the birthplace of the patients. This study has proved to be very successful, but some immigrants from low-prevalence countries have no doubt been missed.

I am very anxious to ask doctors who know of any M.S. patient who was born in a low-prevalence part of the world if they would co-operate with this study by informing me about the patient, with the patient's permission. I am, etc.,

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### Suicidal Attempts with Beta-adrenoceptor Blocking Agents

SIR,—Drs. P. Karhunen and G. Härtel (21 April, p. 178) reported a case of attempted suicide with 9,000 mg of practolol. Apart from very modest reductions in blood pressure and heart rate, no effects were observed and no special treatment was necessary. The highest measured plasma concentration of practolol was 58.6 µg/ml. More recently Drs. W. Wermut and M. Wójcicki (15 September, p. 591) reported a case of attempted suicide with 2,000 mg of propranolol. No signs of cardiac disturbance were observed after what is described as a "massive" dose of propranolol. The authors concluded that "the effect of propranolol on the healthy heart needs to be reconsidered."

We have recently reported<sup>1</sup> the effects of beta-adrenoceptor blocking agents in healthy human volunteers. Maximally tolerated doses were administered intravenously over five minutes. These were: practolol 1,280 mg, propranolol 120 mg, oxprenolol 160 mg, sotalol 160 mg, and pindolol 16 mg. Effects on supine blood pressure and heart rate were slight and

certainly represented no clinical hazard. There was, of course, marked antagonism of any induced increase in heart rate. Plasma levels of the drugs were not measured, but on the basis of the work of Aellig *et al.*<sup>2</sup> it is estimated that the peak plasma level of practolol in our lightest subject (62 kg) was approximately 100 µg/ml.

Doses of beta-adrenoceptor blocking agents required to achieve therapeutic effect cover a wide range. Zacharias and Cowen<sup>3</sup> found that more than 15% of hypertensive patients required 1,000 mg or more of propranolol daily. Kincaid-Smith *et al.*<sup>4</sup> report using propranolol in doses up to 2,000 mg daily and Prichard<sup>5</sup> up to 4,000 mg daily. Of course these doses have been achieved after gradual titration, and it is appreciated that in patients with incipient cardiac failure it is the starting dose that is likely to precipitate overt failure. However, even this hazard might well be prevented by prior digitalization.

When maintenance of resting cardiac output relies on sympathetic drive, administration of a beta-adrenoceptor blocking agent might, by antagonizing that drive, precipitate cardiac failure. The healthy subject when resting supine maintains cardiac output and blood pressure in the absence of sympathetic drive, and so in this situation beta-adrenoceptor blocking agents, even in "massive" dosage, are not likely to represent a hazard.—We are, etc.,

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1 Boakes, A. J., Boeree, B. H., and Prichard, B. N. C., *Naunyn-Schmiedeberg's Archiv für experimentelle Pathologie und Pharmacologie*, 1973, 279, Suppl., R42.

2 Aellig, W. H., Prichard, B. N. C., and Scales, B., *British Journal of Pharmacology*, 1970, 40, 573P.

3 Zacharias, F. J., and Cowen, K. J., *British Medical Journal*, 1970, 1, 471.

4 Kincaid-Smith, P. Fang, P., and Laver, M. C., *Clinical Science and Molecular Medicine*, 1973, 45, 75S.

5 Prichard, B. N. C., *British Journal of Hospital Medicine*, 1973, 10, 45.

### Depression of Cellular Immunity in Pregnancy due to a Serum Factor

SIR,—The article by Dr. C. A. St. Hill and others (8 September, p. 513) is a wonderful example of how to hoodwink a venerable journal with statistical "t's and "P's", even when wrongly applied and irrelevantly theorized.

Consider that the *t* test was used to compare, within the same experiment, five groups of data: (A+B) with (C+D), (C) with (D), and (A+B+C+D) with (E). The correct method of analysis here would be analysis of variance, and I would guess that if anything were significant in the experiment by analysis of variance, only the last grouping might be. Of course, we don't even know how good the technique is, since the authors don't give us their normal values of lymphocytes in autologous serum with standard deviations thereof—it might discourage us from pursuing the paper.

Finally, to add insult to injury, the theorization is done not on the allegedly significant differences, but those which are insignificant (namely, (C) against (D), or "fetal serum has a greater depressive action than maternal serum").

Please, if we are to have statistics, let them be correctly planned, expertly presented, and judiciously edited.—I am, etc.,

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\*\* We showed Mr. Munster's letter to Dr. St. Hill and his colleagues, whose reply is printed below.—ED., *B.M.J.*

SIR,—If there had been no prior reason for testing the difference between the pregnant (C+D) and non-pregnant (A+B) sera, the significant result ( $P < 0.01$ ) might have been dismissed as an effect of multiple comparisons, but the investigation was concerned with a difference of this kind. To report an analysis of variance, as a process of unguided statistical exploration, would have been superfluous. Moreover, the most important of the possible comparisons, that of (E) with (A+B+C+D) is too highly significant to be dismissed in this way. The choice of the comparative transformation rate for the statistical analysis is an orthodox use of standard statistical techniques.

Mr. Munster is guilty of quoting out of context. Our statement that "fetal serum has a greater depressive action than maternal serum" was heavily qualified. Thus it was immediately preceded by the phrase: "Our results raise the possibility that . . .," and in the results section we noted that the difference in the suppressive action of fetal and maternal serum was statistically not significant. We therefore thought that we had made it sufficiently clear that this was only a suggestion; moreover, it only constitutes an unimportant part of our thesis.

Some years ago an eminent professor of orthopaedics who was opposed to, and probably ignorant of, the value of statistical analysis used to teach his students that statistics were not essential and that "if it's important, laddie, it will hit you in the eye." The kernel of our paper was the difference shown in the figure between (A+B+C+D) and (E). This surely "hits one in the eye," and statistical wrangling, however elegant, cannot possibly obscure this observation.—We are, etc.,

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### Making Hospital Geriatrics Work

SIR,—May I reply to Dr. R. V. Boyd (3 November, p. 298), who comments on the paper by Dr. P. M. Jefferys and myself (2 December 1972, p. 536)?

Dr. Boyd found that an 11% bed reduction suddenly imposed on his active department at Greenwich resulted in a catastrophic fall in admission rate and the accumulation of a large waiting list. One sympathizes with him on this unfortunate occurrence, but he does indicate that there were some unusual circumstances. In his well-bedded days he took on "a high long-stay commitment to help out other agencies under stress." In contrast to the Greenwich experience, other active departments have found it possible effectively to reduce their

beddage without detriment to the service they are able to give. For example, Dr. Gordon Mills at Central Middlesex Hospital has reduced geriatric beds by 17% since his appointment six years ago, while markedly increasing the activity of the department and eliminating the previously considerable waiting list. While I fully accept Dr. Boyd's important point that an arbitrarily imposed bed reduction may cripple an active geriatric service, this does not, in my view, prove that in Greenwich 178 beds is below the "critical number of beds . . . with which a high-turnover/no-waiting-list service can be given." It seems to me likely that had Dr. Boyd been provided with only 179 beds when he was appointed he would not have taken on those extra long-stay patients "to help out other agencies under stress." He would have cut his coat according to his cloth and, I believe, would have established an active service, just as he did with 200 beds.

The stimulating paper by Dr. T. D. O'Brien and his colleagues (3 November, p. 277) also prompts me to reply to a number of earlier comments on our paper to the effect that our new department at this hospital, which had quickly reached a high-turnover/no-waiting-list situation, would inevitably "silt up" when the effect of the bonus of initial empty beds had been dissipated. Dr. O'Brien and his colleagues describe a 17-year experience in Oldham, where the geriatric department has steadily become more active—a powerful counterblast to those who gloomily prophesy silting up for active departments and whose views are in any case challenged by Dr. P. W. Hutton (23 December 1972, p. 730) and by Dr. E. Woodford-Williams (27 January, p. 232). May I assist in the further eclipse of these pessimistic forebodings by reporting that, three years after opening, the Northwick Park geriatric service has still to silt up, and may I also extend the information on my previous department (Enfield and Tottenham Groups), which has yet to silt up after a total period of 11 years, turnover remaining between six and seven admissions/bed/year.—I am, etc.,

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#### Thyrotrophin-releasing Hormone, Prolactin, and Cholesterol

SIR,—In a recent letter Drs. Mary J. E. van der Vis-Melsen and Jan D. Wiener (17 November, p. 419) reported a rise in serum cholesterol levels in patients on thyrotrophin-releasing hormone (TRH) therapy. The most likely candidates as the causative agents are TRH itself, thyrotrophin, or prolactin. TRH stimulates secretion of both pituitary hormones.

I have previously suggested that there are already a number of strands of evidence pointing tentatively to the concept that prolactin may be important in the regulation of cholesterol metabolism.<sup>1</sup> (1) Patients on phenothiazine therapy have elevated serum cholesterol levels.<sup>2</sup> Phenothiazines are powerful stimulators of prolactin secretion. (2) Prolactin levels are often elevated with hypothyroidism: In some cases the elevation may be sufficient to cause galactorrhoea.<sup>3,4</sup> As yet failures<sup>5</sup> to find elevated prolactin levels in

hypothyroidism have been based on single samples taken during the day. This is not likely to be the most sensitive way of detecting hypersecretion of a hormone whose plasma half life is of the order of 15 minutes and the bulk of whose secretion takes place at night. (3) In rabbit and rat ovaries prolactin has been shown to play a key role in stimulating the synthesis of cholesterol stores.<sup>10,11</sup> (4) The high serum cholesterol levels which occur in the nephrotic syndrome are unexplained. In rats, however, a form of the nephrotic syndrome can be caused by prolactin.<sup>12,1</sup> There is no direct evidence for a role of prolactin in the human nephrotic syndrome, but some of the features of some of the varieties of the disease are not inconsistent with the idea.<sup>1</sup>

The elevation of serum cholesterol by TRH is one more piece of evidence suggesting that the role of prolactin in cholesterol metabolism is worth investigating.—I am, etc.,

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- Horrobin, D. F., *Prolactin: Physiology and Clinical Significance*. Lancaster, Medical and Technical Publishing, 1973.
- Clark, M. L., et al., *Psychosomatic Medicine*, 1967, 29, 634.
- Edwards, C. R. W., Forsyth, I. A., and Besser, G. M., *British Medical Journal*, 1971, 3, 462.
- Jackson, W. P. U., *Journal of Clinical Endocrinology and Metabolism*, 1956, 16, 1245.
- Jacobs, L. S., Snyder, P. J., Wilber, J. F., Utiger, R. D., and Daughaday, W. H., *Journal of Clinical Endocrinology and Metabolism*, 1971, 33, 996.
- Kinch, R. A. H., Plunkett, E. R., and Devlin, M. C., *American Journal of Obstetrics and Gynecology*, 1969, 105, 766.
- L'Hermite, M., Delvoe, P., Nokin, J., Vekemans, M., and Robyn, C., in *Prolactin and Carcinogenesis*. 4th Tenouus Workshop, Ed. A. R. Boyns and K. Griffiths. Cardiff, Alpha Omega Alpha Publishing, 1972.
- Savely, C., Mödlinner-Odorfer, M., and Szécsényi-Nagy, L., *Endokrinologie*, 1965, 48, 129.
- Van Wyck, J. J., and Grumbach, M. M., *Journal of Pediatrics*, 1960, 57, 416.
- Hilliard, J., Spies, H. G., Lucas, L., and Sawyer, C. H., *Endocrinology*, 1968, 82, 122.
- Armstrong, D. T., Knudsen, K. A., and Miller, L. S., *Endocrinology*, 1970, 86, 634.
- Furth, J., Clifton, K. H., Gadsden, E. L., and Buffets, R. F., *Cancer Research*, 1956, 16, 608.

#### "Caucasian"

SIR,—May I protest against the importation into British medical literature of the misused transatlantic word "Caucasian" (20 October, p. 147)?

Perhaps you will allow me to quote an authority on this. In the *Georgian's* Professor-D. M. Lane<sup>1</sup> says: "Certain physical anthropologists who should know better, and also American immigration authorities who cannot be expected to do so, habitually use this word to denote virtually anyone who is not a Negro, a Jew, Indian, Chinese—in fact, as the virtual opposite of 'Coloured.' In short, a 'Caucasian' in this context comes to be the White Man *par excellence*, so that this term has taken on something of the meaning which in Hitler's time attached to 'Aryan.' This is utterly unscientific and a complete misnomer. The Anglo-Saxons, Latins, Slavs and others to whom the term is so loosely applied have absolutely no historical or ethnic connection with the Caucasian peoples proper, except for certain recent waves of immigration."—I am, etc.,

BRYAN WILLIAMS

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<sup>1</sup> Lang, D. M., *The Georgians*, p. 24. London, Thames and Hudson, 1966.

#### Son et Lumière?

SIR,—Mr. H. A. Daniels's letter (1 December, p. 554) draws attention to the combustible quality of the foul eructations in pyloric stenosis. This has been reported previously<sup>1,2</sup> but perhaps the most dramatic demonstration of the "son et lumière" sign was described by Dr. A. H. Galley some 20 years ago.<sup>3</sup>

The patient was playing bridge with friends when he was offered a light for his cigarette by his partner across the table. As he leant across the table he felt an undeniable necessity to belch. Unfortunately, he attempted to do this discreetly through his nose. He astonished the company by producing two fan-shaped flames from his nostrils. His partner, who accompanied him to the casualty department, described the incident as "just like a dragon, doctor."—I am, etc.,

J. D. MACDONALD

Nairn

- Beatson, G. T., *British Medical Journal*, 1886, 1, 295.
- East, T., *Lancet*, 1934, 2, 252.
- Galley, A. H., *British Journal of Anaesthesia*, 1954, 26, 189.

SIR,—May I suggest to Mr. H. A. Daniels (1 December, p. 554) that his patient may have a gastrocolic fistula.

If gastric eructations are not normally combustible, flatus certainly is.—I am, etc.,

RODERICK HOWELL

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SIR,—As an amateur etymologist of several weeks' standing, I could not resist the challenge brought up by Mr. H. A. Daniels (1 December, p. 554) in his letter describing explosive belching after vagotomy and pyloroplasty. I would like to suggest the term "eluctation" for this phenomenon, the word being compounded from the Latin *erucatio*, to belch, and *lux*, light.

I put forward this suggestion in the knowledge that it is unlikely to gain immediate and universal acceptance. The naming of physical signs is a lottery which usually reflects the interest of the specialist reporting the finding or, in this case, finding the report. By way of illustration, the sign might be referred to by a naval surgeon as "alight wind," a dietitian as "belche flambé," and by a physician as "bangina oris"—literally, a painful explosion in the mouth. If the problem was handed over to an advertising executive no doubt some easily remembered and original description would emerge such as "high speed natural gas."

On further reflection, if this physical sign is a frequent finding after such an operation perhaps we should merely change its name to "vagotomy and pyloroblasty."—I am, etc.,

MICHAEL DIXON

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SIR,—Mr. H. A. Daniels's case (1 December, p. 554) is clearly one of eructant dragon syndrome.—I am, etc.,

I. B. PORTEOUS

Co. Durham Consett,

SIR,—Daniels's pyloropyrotechnics?—I am, etc.,—

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