

LUTEINISING HORMONE IN XYY MEN

SIR,—Dr. Papanicolaou and his colleagues¹ reported increased excretion of luteinising hormone in the urine of 47, XYY men. We have examined the luteinising hormone level in the serum of 7 men in institutions, all of whom were over 6 ft. (180 cm.) high, and had aggressive personalities and 47, XYY chromosomes. The serum level of the luteinising hormone in these patients was 35.1 ± 6.7 m. i.u. per ml. compared with 15.0 ± 3.9 m. i.u. per ml. in 10 46, XY males, over 6 ft. high, who were selected as controls. Luteinising hormone was assayed by the radioimmunoassay method of Schalch et al.² The variances for the two groups were significantly different ($F=31.08$, D.F.=1.16, $P < 0.001$).

These patients will be reported in greater detail at a later date.

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Division of Child Development,
Childrens Hospital of Los Angeles,
Los Angeles, California 90027.

CHARLES E. PARKER.

FRAGMENTATION OF CARDIAC MYOFIBRILS AFTER THERAPEUTIC STARVATION

SIR,—The publication of the paper by Dr. Garnett and his colleagues (May 3, p. 914) is of major importance, and the explanations given answer several so far little-explored aspects of weight reduction. The authors deserve tribute, not only for the concise summary of their findings but particularly for their firm stand in pointing out the dangers of prolonged total starvation as a clinical method for weight reduction.

There are, however, certain aspects which require some comment. Most textbooks of physiology mention that professional fasters could starve themselves with impunity for 40–50 days. The famous Succi fasted under the supervision of Luciani for 40 days and lost 25% of his weight. The mayor of Cork, MacSwiney, went into coma after 74 days' fasting and died.³ Among the recent record breakers, a patient in Glasgow successfully lost a considerable amount of weight after 248 days of total fasting.⁴ From animal experiments it seems that death from starvation occurs only after reduction of the body-weight to from three-fifths to half of the original weight.

When Bloom first advocated fasting as an introduction to the treatment of obesity,⁵ he suggested 4–9 days' total fasting, mainly for physical and psychological adaptation, followed by a 600–800 C. diet. Afterwards patients were subjected to longer stretches of intermittent, or continuous, starvation. It was assumed that the present-day laboratory methods gave sufficient control of the changes which occurred in the external and internal milieu. Thus the old rule, to maintain homeostasis by interrupting for some time the severe dietary restrictions after loss of about 15–18% of the original weight before further reduction was considered, seems to have become old-fashioned. Otherwise it would be more than difficult to understand the decision to submit a healthy young woman to total starvation lasting for 210 days in order to achieve what is euphemistically called ideal weight (i.e., reduction of weight by 49% in one stage).

The assessment of laboratory results is often liable to serious misinterpretation. Thus, it was realised in this case that after the initial rapid weight-loss serious hypokalaemia occurred, when, despite considerable daily potassium supplementation, the exchangeable potassium fell from the prefasting level of 3360 meq. to 1400 meq. (i.e., by 58%). It was also rightly

calculated that the fall of 14.6 litres extracellular fluid corresponded approximately to 14 kg. lean-tissue mass. Such sudden excessive loss in lean-tissue mass, however, should not be the aim of successful treatment of obesity.

The electron-microscopic findings of the authors are of the greatest importance and it is to be hoped that they will further elaborate them in their forthcoming publication in *Metabolism*. Fragmentation of the myofibrils with loss of cross-striation, with vitreous alterations and increased nuclei, have been previously described in the victims of the Warsaw ghetto.⁶ Furthermore, Keys et al. emphasise⁶ that "cardiac musculature does not seem to differ from skeletal musculature in response to starvation, except perhaps that the relative decrease in mass may be slightly less". Finally it may be mentioned here that in the concentration camps of the unoccupied zone of France in 1941–42 sudden deaths suggesting cardiac origin were common in starved persons.⁷

London W.1.

Z. A. LEITNER.

SUBACUTE SCLEROSING PANENCEPHALITIS

SIR,—Sir Macfarlane Burnet⁸ postulates that the "essential anomaly in the S.S.P.E. patient is that the conclusion of a measles attack finds occasional measles cells, presumably lymphocytes, lodged in immunologically privileged areas in the sense that cellular reaction against them is difficult or impossible". Two such areas were pointed out as being the central nervous system and the thymus.

Recently we have reported the isolation of rubeola virus from cultured brain cells of a patient with subacute sclerosing panencephalitis (S.S.P.E.).⁹ With this finding we have confirmed one of Sir Macfarlane Burnet's hypotheses; however, preliminary studies involving thymus tissue appear not to be as promising. Isolation of the virus from thymus tissue using the same procedure as reported with the brain material has been unsuccessful. Fluorescent-antibody studies to demonstrate the presence of virus in frozen sections of thymus tissue and cultured thymus cells have also proved negative. Thus we have no evidence that rubeola virus invaded the thymus tissue of this patient with S.S.P.E. It should be noted, however, that this is only one case; and, now that a method for isolating the virus is known, further attempts will be made to demonstrate the presence of virus in this tissue.

Section on Infectious Diseases,
Perinatal Research Branch,
National Institute of Neurological
Diseases and Stroke,
National Institutes of Health,
Bethesda, Maryland 20014

DAVID A. FUCCILLO
LUIZ HORTA-BARBOSA
JOHN L. SEVER.

THE NEW COMPUTERISED MEDICAL DIRECTORY

Mr. B. STANTON (Editor, *Medical Directory*) writes: "Early in June, after a number of regrettable delays, copies of the *Medical Directory 1969* (the 125th annual issue) will be dispatched to subscribers. During 1968 the book was transcribed on to magnetic tape, and the new edition has been printed by the use of computer-aided typesetting techniques. The setting-up of the very complicated file, and the processing of the 30,000 amendments needed in the 1969 book, have been beset by the sort of difficulties seemingly encountered by everybody in the early stages of computerisation. The publishers much regret that the 88,448 entries include some hundreds that are not as they should be. Most of the errors are minor faults of style but perhaps a dozen entries are garbled, and in some the intended amendments have not appeared in the

1. Papanicolaou, A. D., Kirkham, K. E., Loraine, J. A. *Lancet*, 1968, ii, 608.
2. Schalch, D. S., Parlow, A. F., Boon, R. C., Lee, L. A. *J. clin. Invest.* 1968, 47, 665.
3. Best, C. H., Taylor, N. B. *The Physiological Basis of Medical Practice*; p. 1021. London, 1943.
4. Thomson, T. J., Runcie, J., Miller, V. *Lancet*, 1966, ii, 992.
5. Bloom, W. I. *Metabolism*, 1959, 8, 214.

6. Keys, A., Brožek, J., Henschel, A., Mickelson, O., Longstreet Taylor, H. *The Biology of Human Starvation*; p. 185. Minneapolis, 1950.
7. Zimmer, R., Weill, J., Dubois, M. *New Engl. J. Med.* 1944, 230, 314.
8. Burnet, F. M., *Lancet*, 1968, ii, 610.
9. Horta-Barbosa, L., Fuccillo, D. A., Sever, J. L., Zeman, W. *Nature, Lond.* 1969, 221, 974.

printed book, for a variety of technical reasons. A few names have been omitted altogether. The staff and computer consultants are doing everything in their power to solve the problems, so that the expected benefits of computerisation may be achieved as soon as possible, and we have every hope that the next edition will approach the high standard of previous issues. The annual schedule for the 1970 book, produced by computer and in an entirely different form from the schedules of the past, will be dispatched in a few weeks' time by an outside contractor. It will be much appreciated if the appropriate sheet is posted to our new editorial office (105 Baker Street, London W1M 2BE) as soon as possible after receipt and verification. I would welcome with gratitude details of errors noticed by users of the book if sent by letter to the address above. It is regretted that, owing to pressure of work, it will not be possible to send an acknowledgment."

Parliament

"Fuddy-duddies" Speak Out for the Nurses

NURSES' pay and conditions of work came in for another round of debate in the House of Lords on May 15. Lord AMULREE, who rose to ask the Government what steps it proposed to take to improve the conditions under which nurses work, doubted whether it was right that the Whitley Council should be responsible for nurses' pay. Because the nurses had become a professional body he thought they should have a review body like the doctors'. He had found that appearing before the Council was a disheartening, discouraging, and disappointing affair. Later speakers were not so polite in their criticism of the Council—Baroness BROOKE OF YSTRADFELTE called it a "sacred cow", the most unrealistic and unimaginative body that had ever been set up as a guardian of fair play, and Baroness ELLIOTT OF HARWOOD said that it was a public meeting rather than a negotiating body and that there should be a small committee representing both sides.

Baroness BROOKE deplored the poor "financial carrots" which were dangled before senior nurses and also wondered why, whenever a pay award was granted to nurses, more money was promptly required for board-and-keep emoluments and was backdated to the day of the rise. Baroness SUMMERSKILL pointed out that orderlies and domestics in the ward got a bigger take-home pay than the nurses. She was particularly concerned about the so-called "student" nurses, who worked full time at a hard and physically arduous job. If they were students they should receive a grant free of tax; if they were workers they should be paid a reasonable wage. They were used as cheap labour and not surprisingly often gave up after the first year. Baroness BROOKE agreed that the student nurse should be regarded as a student and should be given all necessary facilities. At the moment they spent only a quarter of their time learning, and the rest running the hospital.

Baroness SEROTA, Minister of State for the Department of Health and Social Security, could say little in reply but remind the House what improvements had already taken place. She accepted that everyone, including herself, wished these would go further and faster. The last revision of nurses' pay had been agreed by the National Board of Prices and Incomes, an independent body, and the Whitley Council had only translated the Board's recommendations into specific agreements. She assured the House that the matters which had been raised, as well as the pay question, would be reviewed in the next comprehensive review covering all grades of staff which would probably be starting in the next few months.

Industrial Diseases

On May 19 the House of Commons approved the Pneumoconiosis, Byssinosis, and Miscellaneous Diseases Benefit (Amendment) Scheme, 1969. This extends the Benefit Scheme, 1966, to include anyone with adenocarcinoma of the nasal

cavity or associated air sinuses who has been working in or about a building where wooden furniture is manufactured. The disease is also being prescribed under the Industrial Injuries Act for those employed in this industry after 1948.

QUESTION TIME

Prescriptions

Mr. RICHARD CROSSMAN, Secretary of State for Social Services, said that the number of prescriptions dispensed by chemists was lower from July, 1968, to January, 1969, inclusive than in the corresponding period twelve months earlier. When pressed to say whether he agreed that this indicated that patients were being prevented by charges from receiving treatment or whether before the charges were imposed doctors were prescribing needlessly, he said that both possibilities were there. Statistics were insufficient to draw a conclusion from them.

Geriatric Beds in Sheffield

Mr. RICHARD CROSSMAN, Secretary of State for Social Services, said that in the Sheffield Regional Hospital Board area the number of geriatric beds at Dec. 31, 1962, was 5261. The number of people on the waiting-list for these beds was 1072 at Dec. 31 in 1962, 1652 in 1964, 1171 in 1966, and 984 in 1968.

Employment of the Disabled

Mr. ERNEST FERNYHOUGH, under-secretary of State at the Department of Employment and Productivity, said that on May 31, 1968, 46.3% of firms with twenty or more employees employed the required proportion of registered disabled. Employers with less than their quota were not committing an offence, but were subject to restrictions on the engagement of fit workers. They were contacted regularly to remind them of their quota obligations, and action was taken as the circumstances warranted where failure to comply with the provision of the Act was revealed. On March 10, 1969, 69,758 registered disabled persons were registered as unemployed, of whom 59,984 were considered to be capable of ordinary employment.

Appointments

- BROAD, A. F., M.B. Lond., D.M.R.T.: consultant radiotherapist, Plymouth and West Cornwall clinical areas.
 BROOMHEAD, I. W., M.B. Cantab., F.R.C.S.: consultant plastic surgeon, Guy's Hospital group, London.
 CROMPTON, G. K., M.B. Edin., M.R.C.P.E.: consultant physician, respiratory-diseases unit, Northern General Hospital, Edinburgh.
 * HARDWICK, P. B., M.B. Lond., F.F.A. R.C.S.: consultant anaesthetist, Charing Cross Hospital Group.
 HUGHES, GARETH, M.B. L'pool, M.R.C.P.G.: consultant geriatrician, Bronglais General Hospital, Mid-Wales Hospital Management Committee.
 KIRKPATRICK, W. E., M.B. Leeds, M.R.C.P.E., D.OBST.: consultant dermatologist, Bradford Royal Infirmary and Bradford and Airdale area.
 MILES, D. W., B.S.C., M.B. Leeds, M.R.C.P.: consultant in general medicine, Airdale area, Yorkshire.
 MILLER, MARGARET L., F.F.A. R.C.S.: consultant cardiologist, Northern General Hospital, Sheffield.
 MUIR, I. F. K., M.B.E., V.R.D., M.S. Lond., F.R.C.S.: consultant plastic surgeon, North-Eastern R.H.B., Scotland.
 MYERS, KENNETH, M.B. Wales, D.P.M.: consultant psychiatrist, Middlewood Hospital, Sheffield.
 ROBERTSHAW, DENISE E., M.B. Edin., D.P.H., D.C.H.: principal M.O., maternity and child welfare, County Council of West Riding, Yorkshire.
 THOMAS, J. L. E. W., M.B. Lond., F.F.A. R.C.S., D.T.M. & H.: consultant anaesthetist, United Bristol Hospitals.
 WEBB, J. N., M.B. Cantab., M.R.C.P.E., D.OBST.: consultant pathologist, Western General Hospital, Edinburgh.

Birmingham Regional Hospital Board

- BARFORD, A. V., B.S.C., M.B. Wales, M.R.C.P.: consultant physician in geriatrics, East Birmingham hospital group.
 CRAUSE, JACK, M.B. Lond., D.P.M.: consultant psychiatrist, Burton-on-Trent hospital group.
 LEWIS, M. A. H., M.B. Wales, F.F.A. R.C.S.: consultant anaesthetist, Coventry hospital group.
 PEARCE, J. L., CH.M. Birm., D.O.: consultant ophthalmologist, Mid-Worcestershire hospital group.
 TAI, Y. M. A., L.R.C.P.I., F.F.A. R.C.S., D.OBST.: consultant anaesthetist, Dudley and Stourbridge hospital group.

* Amended notice.