Glucose Tolerance in Rheumatoid Arthritis

SIR,—Drs. Shackle and Copeman's article in the *Journal* of February 18th (p. 268) on this subject is of absorbing interest. Ever since Pemberton drew attention to the reduced sugar tolerance of the rheumatoid arthritic this feature has been quoted by various authors, but the reason for its existence has never been satisfactorily explained. It has been asserted that the high and prolonged sugar curve was attributable to failure of the muscles to utilize the glucose on account of extensive capillary constriction. In support of this statement was brought forward the fact that the sugar curve could be brought back to normal by the use of vaso-dilators, particularly thermal baths. The objection to this explanation has seemed to me to be that the basal metabolic rate should be found to be appreciably lowered. This, however, is not the case. Presumably, in view of Drs. Shackle and Copeman's work, the effect of vaso-dilators can be ascribed to their approximating the arterial and venous "peaks" to which they refer. Venous blood collected at, say, two hours after the beginning of the test might then give normal readings.

I have notes of thirty-two cases of rheumatoid arthritis in the active stage whose glucose tolerance has been estimated by Dr. C. Dukes or by Dr. Ryffel, and twenty-seven of these exhibited reduced tolerance, the curve being, as a rule, unusually high and always abnormally prolonged. Of the remainder, who fell within the normal limits, the curves were invariably *high* normals. Observations of the former group fully confirm the authors' statement that the renal threshold is raised. "Leakage" usually occurred in my series when the blood sugar rose above 0.21 per cent.

At one point my conclusions differ from those expressed in the paper to which I refer—namely, the effect of treatment on the sugar metabolism. I have found that a well-marked clinical improvement is associated with a return towards normal of the blood sugar curve. Thus a woman who in 1931 produced figures of 0.26 and 0.27 per cent., at sixty and ninety minutes respectively, when retested nine months later gave readings of 0.18 and 0.16 per cent. at the corresponding intervals after ingestion of 50 grams of glucose. Her treatment consisted of foam baths, dieting (reduced carbohydrate intake), and a prolonged course of "proteose" injections. No insulin was used.—I am, etc.,

London, W.1, Feb. 18th. A. H. DOUTHWAITE.

Recovery from Pneumococcal Meningitis

SIR,—Though proof of its pneumococcal nature is lacking, the following case is perhaps not without interest in connexion with those described by Drs. McAuley and Hilliard and by Dr. Parkes Weber.

The patient, a youth aged 20, seen by me in May, 1921, had been taken ill a week before with "influenza," followed in a day or two by well-marked signs of pneumonia at the left base, with cyanosis and rusty sputum. This appeared to be subsiding satisfactorily when he one day complained of severe headache. At this time he was quite clear mentally; neither knee-jerk could be obtained; the abdominal and plantar reflexes were normal; Kernig's sign was positive on the right side (120 degrees). Signs of consolidation of the left lower lobe were still present.

About 20 c.cm. of uniformly turbid cerebro-spinal fluid, under increased tension, were withdrawn by lumbar puncture. The fluid gave a positive Nonne-Apelt reaction, produced no reduction of Fehling's solution, and contained 1,500 leucocytes per c.cm., about 60 per cent. of which were polymorphonuclears, but as a considerable number of cells were very degenerate an accurate differential count was impossible. A prolonged search of smears failed to reveal any micro-organisms.

The abstraction of fluid did not relieve the headache, so 1/6 grain morphine was given hypodermically. In the evening he was decidedly better, and about five ounces of blood were removed from a vein in the arm with a view to injecting the serum intrathecally, in the hope that it might contain antibodies to the infecting organism, which was thought almost certainly to be a pneumococcus. The following day, however, his condition had improved so much that it was decided to leave well alone, and he proceeded to make an uneventful and complete recovery.

Unfortunately all cultures proved sterile, so that no greater claim can be made for this case than that it was one of recovery from meningitis in a person suffering from pneumonia, as it is of course possible that infection of the meninges was occasioned by the influenza bacillus or some other organism.—I am, etc.,

Bath, Feb. 20th. RUPERT WATERHOUSE.

Diagnostic Exploral Suction of Nasal Sinuses

SIR,—In the leading article in the *Journal* of December 31st, 1932 (p. 1201), you directed attention to the monograph on sinus disease and mental disorder, published in the July number of the *Journal of Mental Science*, which contains statistics of the findings in 880 cases of mental disorder whose nasal sinuses were investigated by the exploratory technique evolved by Dr. Patrick Watson-Williams.

In these cases of psychosis from sinus disease it not infrequently happens that the indications in the nose of the presence of sinusitis are not typical or may even be absent; the psychotic state, thus resembling other toxaemic states arising from foci of sepsis, increases as the evidence of external focal discharge diminishes. Hence the importance of this special technique in the search for sources of toxaemia in psychotic patients cannot be overestimated, especially in cases in which there is an early history of symptoms referable to the upper respiratory tract, and in those in which psychosis appears immediately after an attack—not infrequently mild—of what is regarded as influenza.

In his letter of February 4th (p. 203) Dr. Patrick Watson-Williams submits for general adoption a more precise nomenclature for this technique in order that records of investigations in sinus disease can be put on a uniform basis. That records should adequately indicate the exact mode of investigation has been recognized in such research in cases of mental disorder. The Board of Control in Part I of its Eighteenth Annual Report for the year 1931 (pp. 108, 109) indicates the importance of this matter thus:

> "To those who report that search for evidence of sinusitis or other foci of chronic infection has failed to reveal it as a relatively common condition we venture to make the request that they will make quite sure that they are using the precise technique employed by those who report positive results, and if they do not use this technique, to make that fact clear."

Of the terms which Dr. Watson-Williams suggests, that of "suction-exploration" appears the most useful.—I am, etc.,

Birmingham, Feb. 13th. T. C. GRAVES.

"Tonsils: In or Out"

SIR,—Your review of a book by Dr. Albert Kaiser of Rochester, N.Y., entitled *Tonsils: In or Out*, seems to me to require some notice. I would associate this book with the discussion on the end-results of the tonsil and adenoids operation which took place at the Section of Oto-laryngology at the Centenary Meeting of the British Medical Association in July, 1932. In the book, or at least in the review, and at the meeting of the Section, the operation is judged by its effect on a series of events