normal at 9 a.m. We felt that by taking 7 μ g. we were making every effort to make people normal rather than trying to create abnormality.

DR. M. K. JASANI (*Glasgow*): I was most interested in your paper because we are doing similar work in Glasgow. Unquestionably, many factors can determine suppression of the hypothalamo-pituitary-adrenal axis in each patient; it is most valuable that your patients received one dose of corticosteroid at one time of day.

DR. F. E. BRUCKNER (*London*): The timing of your resting specimen at 9 a.m. is of interest. We did diurnal cortisol rhythms on normal patients and found that the greatest rise in plasma cortisol occurred between 6 and 11 a.m., the time when you performed your Synacthen tests; so you would expect a rise no matter what you gave them. It may be preferable to do ACTH stimulation tests in the afternoon instead of the morning. Were you intending to repeat this test with the same total dose of steroids, but giving Prednisolone twice a week instead of daily? There is evidence that if you give the pituitary a few days' rest, it will have a chance to recover during this time.

DR. HICKLIN: I hardly think it possible, even accounting for the morning rise in cortisol, to see such sharp rises to so high levels after the injection of anything but an adrenal stimulant. From this and other studies we have only information about the normal behaviour under Synacthen stimulation at 9 a.m. and I am unable to express any opinions about what might happen at 5.30 p.m. As far as the study of the effects of 15 mg. twice a week is concerned we feel that we have enough trouble on our hands already!

DR. A. J. POPERT (*Worcester*): Was there any difference in the severity of the rheumatoid arthritis in the patients tested?

DR. HICKLIN: They were all much of a muchness, that is the kind of patient who needs some help over morning stiffness.

PROF. E. G. L. BYWATERS (*Taplow*): Does not the President think the pituitary is the most important part of the axis and if so what does he think is the best combination of tests to use at the present time?

DR. O. SAVAGE (*London*): The Synacthen test is very satisfactory. It does not upset the patient. The real problem is the test of the pituitary. The Metapyrone test is unsatisfactory. The hypoglycaemic test is about the best at the moment, but it does entail lowering the blood sugar to a level which can produce stress and may need repeating. We need a measurement of ACTH in the blood. Once we can obtain this we shall be in a position to measure both pituitary and adrenal response separately.

DR. ALAN MYLES (*London*): We have been doing similar studies but our results have been rather different. We have found, in a group of patients who had had corticosteroids for up to 13 years and in a total dose of up to 62 g., that three-quarters had a normal synacthen test. We have used different criteria since we have taken 5 μ g. per cent. as being the lower limit of normal for plasma cortisol and 7 μ g. per cent. as the minimum rise for a positive synacthen test. We used the method of Spencer-Peet, Daly, and Smith (1965) for the estimation of blood cortisol, because we think this is more accurate at low levels. We have found that all cases having an initial cortisol in the normal range have had a normal synacthen test and we think that a normal plasma cortisol may indicate that the patient does not have pituitary adrenal suppression.

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BOOK REVIEW

Beitrage Zur Rheumatologie. Vol. X. By Prof. HANS TICHY and Prof. KURT SEIDEL. 1966. Pp. 111, 26 illus. Ver. Verlag Volk und Gesundheit, Berlin and Jena. (2½ gns.).

The tenth volume of the "Beiträge", under the joint editorship of Prof. Hans Tichy of Dresden and Prof. Kurt Seidel of Jena, is devoted to a review of the efforts made by the various European countries to deal with the rheumatic diseases. It also traces the development of international co-operation in the specialty, first proposed by the late Jan van Breemen in 1913. A good deal of information had obviously to be collected before giving a detailed study of every major institution and organization, country by country. Its accuracy may be gauged by the close

description of such rheumatism centres, and the names of those in charge, in the United Kingdom. While certain senior members of the Heberden Society may be surprised to find they have acquired a professorship, it is but a commentary on the paucity of chairs in the specialty and, perhaps, a portent of things to come.

This volume, like its predecessors, is printed on excellent paper and contains numerous excellent illustrations; some of these are architectural drawings of new or proposed centres and should arouse the envy, if not the interest, of many a clinician. There is a table of contents and a comprehensive index. The least attractive feature is the high price.

DAVID PREISKEL