DR. WEST: The only patient I can recollect was one who had been on cortisone and then prednisolone for 6 to 7 years and who had only just started ACTH. I do not think that we have had any in-patients on long-term ACTH therapy.

Measurement of Effective Concentrations of Cortisol available to Cells affected by Rheumatic Diseases. The renal handling of cortisol was studied in the hope of deducing the effective (non-protein bound) plasma concentration from the amount filtered in the kidney and the G.F.R. The passive tubular reabsorbtion could easily be allowed for, but it was difficult to account for or eliminate the cortisol that was specifically reabsorbed—which under standardized morning conditions was approximately 80 per cent. Corticosterone was found to inhibit much of the reabsorption, presumably by competition for the absorbing sites, but it also displaced cortisol from its binding in the plasma and the pituitary-adrenal feed-back mechanism did not restore the normal level quickly enough. The measurement of urinary free cortisol was the best guide to the effective plasma concentration, but they had not yet been able to devise an assay procedure that would provide an *accurate* measure at physiological plasma levels. What one needed to know, in rheumatic diseases, was the effective concentration of cortisol *within* the affected cells. It had been found, using tritiated cortisol, that the concentration of cortisol was much higher in plasma ultrafiltrate than in saliva ultrafiltrate, and that the reverse obtained for its metabolite cortisone. Tritiated betamethasone met the same fate in crossing from the plasma to the saliva. These observations indicated that certain tissues might, through excess enzymatic degradation of corticosteroids, be deficient in these hormones while the individual concerned might have an excess of corticosteroids. The next step was to study the concentration of corticosteroids and their metabolites within the cells affected by rheumatoid arthritis.

Discussion.—PROF. E. G. L. BYWATERS (*Taplow*): You have based your later observations on the free cortisol in plasma but you began by saying that it was very difficult to measure this concentration.

DR. WEST: In these experiments we used large doses of tritiated cortisol and betamethasone, and we took at least 100 ml. blood. This is not a thing that you can do every day.

DR. G. D. KERSLEY (*Bath*): Have you examined the salivary steroids in pregnant rheumatoids who get worse—for about one in five does not improve.

DR. WEST: I am afraid we have not. There are many things that we ought to do, and I wish that some people would join us in this, because there are not many working in this field. We have been studying free steroids in saliva for 3 years and no other papers on this subject have been published.

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The first issue of this new Journal under the editorship of Prof. Arnold Sorsby is to be brought out in 1964. The editor will welcome contributions from workers in this field, which should be directed to him at the Royal College of Surgeons, or c/o the Publishers, at B.M.A. House, Tavistock Square, W.C.1.

CORRECTION

SYMPOSIUM ON THE THERAPY OF RHEUMATIC DISEASES

Aix-les-Bains, France, June, 1964

This symposium is to be held in June, 1964 (not January as stated in the *Annals*, **22**, 444). Particulars may be obtained from Dr. J. Forestier, Aix-les-Bains, Haute Savoie, France.

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