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SERUM AND URINARY FERRITIN LEVELS IN PATIENTS WITH RHEUMATOID ARTHRITIS. T. Shirakami, Y. Hiraki, K. Aono, K. Nishiya, M. Hatano, T. Ogura, M. Takaoka, Z. Ota and H. Ezawa. Okayama University Medical School and Kurashiki-Kosai Hospital, Okayama.

The serum and urinary ferritin levels in 52 RA patients were measured by the 2-site immunoradiometric assay method. Serum ferritin levels in RA patients correlated with C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR) but not with serum iron levels and hemoglobin concentrations, although they were within the normal range. High serum ferritin levels were associated with sera with hyper  $\gamma$ -globulin and rheumatoid factors. In sequential studies, serum ferritin changed in parallel with ESR, CRP and disease activity in a majority of the patients. The urinary ferritin levels and u/s ratios in some RA patients were higher than control values. Higher values were found particularly in the group of patients under gold therapy but not in groups under other treatments.

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EVALUATION OF RADIOIMMUNOASSAY FOR URINARY ALBUMIN. K. Seki, H. Sakamaki, K. Togashi, T. Ishigami,

To monitor kidney function and evaluate the degree of glomerular dysfunction, radioimmunoassay for urinary albumin is reported to be very useful.

We evaluated a rapid, sensitive and precise radioimmunoassay kit (DPC) for urinary albumin.

Aliquots of urine were incubated at 25°C for 30 min with I-125 labeled albumin and antiserum. Phase separation was effected by double antibody technique. The dose response curve was excellent in the range of 0-60  $\mu\text{g/ml}$  with the sensitivity of 1  $\mu\text{g/ml}$ . This radioimmunoassay showed sufficient analytical recovery, specimen dilution and precision performances. For 45 healthy subjects, the range of urinary albumin excretion was 2.2-12.6 mg/24hrs.

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A STUDY OF THE STABILITY OF SERUM MICRO COMPONENTS: THE STABILITY OF COMMERCIAL CONTROL SERUM. Masae Usami, Department of Radiology. Saiseikai General Hospital, Okayama, Japan.

The preservation of commercial Control Serum (C-Serum, Dynabot, Inc.) was broken down into four methods: 1) freezing; 2) repeated freezing and melting (freeze-melt); 3) at 4°C and 4) at room temperature. The values obtained for 14 components measured over time were examined to see if they fell within the measured values for frozen serum ( $M \pm 25D$ ) and what the effects were of the different methods of preservation. The results showed the preservation values for serum kept at room temperature ranged from 8 days for folic acid to 103 days for CEA, the respective values for serum kept at 4°C were 11 days and 103 days, and the number of times the freeze-melt process could be repeated was 12 times for folic acid and 68 times for CEA. Generally, the stability values for C-Serum were somewhere between those for pooled and for fresh serum. While the measured values for pooled and fresh serum exceeding their stability periods showed major deviations from the range of  $\pm 25D$ , the deviations of C-Serum were minor. Furthermore, pooled and fresh serum left at room temperature for 10 days emitted a strong, putrid odor. Due to its added preservatives, however, C-Serum did not become at all turbid or putrid, even after it had been left at room temperature more than 100 days. This report also compares the results for pooled and fresh serum.