SERUM FERRITIN LEVEL IN PATIENTS WITH VARIOUS MALIGNANT DISEASE AND HEALTHY INDIVIDUALS. A. Ito, M. Kawamura, S. Tanada, M. Ishine, H. Mochami, H. Kataoka, N. Sumoto and K. Hamamoto. Department of Radiology, Faculty of Medicine Ehime University. Shigenobu.

Ferritin concentration in the human serum was measured by radioimmunoassay. Mean + standard deviation (SD) of ferritin level of 21 healthy males was 102 ± 58 ng/ml and that of 24 healthy females was 22 ± 12 ng/ml. Mean + 2SD of ferritin values of the males and females were used as upper limit of normal values, i.e. 218 ng/ml in male and 46 ng/ml in female.

Percentage of abnormally high value in 7 patients with Basedow's disease, 6 patients with chronic thyroiditis, 8 patients with diabetes mellitus and 8 patients with liver cirrhosis were 75%, 82%, 77% and 75%, respectively. Percentage of abnormally high value in 26 malignant lymphomas, 4 parotid cancers, 3 larynx cancers, 26 lung cancers, 13 esophagus cancers, 13 stomach cancers, 9 hepatomas, 6 breast cancers, 13 uterus cancers and 4 bladder cancers were 46, 0, 0, 58, 38, 54, 44, 83, 85 and 25%, respectively. Among these patients, relatively higher values were observed in patients with remote metastasis.

Significant positive correlation of serum ferritin and S₈⁻microglobulin levels (n=89, r=0.51, p < 0.01) was observed in these patients, whereas no significant correlation (n=88, r=-0.03) was observed between ferritin and CEA levels in these patients.

EVALUATION OF T₃ MEASUREMENT BY THE NEW RIA KITS USING SOLID PHASE METHOD. S. Rosuda, A. Kubo, T. Kinoshita, A. Maekawa and Dep. of Radiology, Keio University School of Medicine and Dep. of Radiology, Okubo Municipal Hospital, Tokyo.

SPAC T₃ kit (tube coating) and Amerlex T₃ kit (latex polymer particle coating) are the new T₃ RIA kits using solid phase method, have been evaluated and compared with T₃ RIA kit I (polycethylene glycol method) and Gamma coat T₃ kit (tube coating). The results of each kits showed high coefficients of correlation among them (r²=0.96–0.99) and thyroid function compatible with various thyroid diseases. However, SPAC T₃ and Amerlex T₃ kits showed slightly high values than T₃ RIA kit I and Gamma coat T₃ kit in various state, especially in euthyroid. T₃ values in euthyroid by T₃ RIA kit I, Gamma coat T₃ kit, SPAC T₃ kit and Amerlex T₃ kit are respectively 121±16.2, 108±19.3, 152±22.6, 157±20.2ng/dl. The comparison of four kits revealed the difference between the values of each control serum. Standardization of every control serum is hoped.


When free T₄ (FT₄), which plays physiologically an important role, has to be measured by RIA, it is necessary to solve the problem on how to selectively extract FT₄ from blood plasma in which T₄-TBG complexes are present. We have studied and compared three kinds of FT₄ RIA kit: 1) Liquisol (Damon) which utilizes microcapsule for separation of FT₄ from T₄-TBG complex, 2) GammaCoat (Clinical assays) which utilizes specific antibody for FT₄ and preincubation for separation of FT₄ from T₄-TBG complex, and 3) Immophase (Corning) which determines the kinetic rate of T₄ binding to the antibody. Based on the results of these studies, it is our conclusion that satisfactory results for clinical usefulness can be obtained with these three kits although the assay principles are different.