Annals of Nuclear Medicine Vol. 8, No. 4, 301–306, 1994

CYFRA 21-1 as a tumor marker used in measuring the serum fragment of cytokeratin subunit 19 by immunoradiometric assay

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Serum levels of cytokeratin subunit 19 (CYFRA 21-1) were measured in 42 healthy volunteers, 104 cases of malignant diseases, 30 patients with chronic renal failure and 13 patients with non-malignant and infectious diseases. The reliability of the method was demonstrated after dilution of serum samples and intra- and inter-assay reproducibility. Serum CYFRA 21-1 concentrations were less than 2.00 ng/ml in all healthy controls and 86% of the malignant cases had high serum CYFRA 21-1 levels. However slightly elevated values of CYFRA 21-1 were observed in most chronic renal failure patients. High correlation was observed between serum CYFRA 21-1 and Tissue Polypeptide Antigen (TPA) values ($r = 0.90$, $n = 10$) but not with serum alpha-feto protein (AFP) concentrations. Furthermore, cross binding tests with the CYFRA 21-1 tracer /CYFRA 21-1 antibody-coated beads and CYFRA 21-1 tracer/TPA antibody-coated beads also gave an almost linear graph. These results indicate that CYFRA 21-1 and TPA share similar type of antigens.

Key words: CYFRA 21-1, TPA, tumor marker, cytokeratin 19, chronic renal failure