limit for creatine, i.e., for men 4 mg/L, and for women 7 mg/L. As expected, samples with a higher creatinine concentration require less creatine for this interference to be manifested.

Evidently creatine interference has no substantive impact on the clinical utility of the Kodak Ektachem single-slide method, because any flagged value is automatically diluted as a part of the routine protocol. Indeed, a "Substrate Depletion" flag should alert one of a possible creatine abnormality and the associated clinical implications, e.g., rhabdomyolysis or other disorders involving destruction or wasting of muscle mass and associated renal failure.

References

An Interleukin 2 Binding Factor in Human Serum, Vittorio Bellotti, Carla Cavalli, Vittorio Perfetti, Paolo Gobbi, and Giampaolo Merlini (Institute of Clinica Medica II, I.R.C.C.S., Policlinico S. Matteo, 27100 Pavia, Italy)

The role of interleukin 2 (IL2) in immune regulation has been much investigated (1). Theoretically, this lymphokine should have a direct or indirect key role in immune deficiencies in many patients with lymphoproliferative diseases.

Ford et al. (2), using a biological assay to evaluate the IL2 synthesis of T lymphocytes in Hodgkin's disease patients, found their values lower than in normal subjects. These results are encouraging, but that method is complex and not feasible in many laboratories.

Recently, we used a commercial immunoenzymatic assay for IL2 (Intertest 2 Human Interleukin-2 ELISA; Genzyme, Boston, MA 02111) to compare the IL2 concentration in serum from normal subjects and patients with Hodgkin's disease. The test is based on use of a purified mouse monoclonal antibody as first antibody, rabbit polyclonal antibody against IL2 as the second. The standards consist of recombinant IL2 (rIL2) at concentrations from 0.05 to 500 kilo-int. units/L.

We tested the IL2 content in serum from 13 normal subjects and 46 patients with Hodgkin's disease and found values ranging from 0 to 5000 kilo-int. units/L, with no significant differences between the two groups. Nor was IL2 correlated with the disease activity indices, immunoglobulin concentrations, or lymphocyte count.

In eight subjects, four normals and four patients, we found very low concentrations of IL2. Furthermore, when we added a standard solution of rIL2 to these sera, even this IL2 disappeared.

To characterize this phenomenon, we incubated rIL2, 500 kilo-int. units/L, for 1 h with buffer or serum at room temperature, then performed all the assay steps according to the manufacturer's instructions. As shown in Figure 1, IL2 was no longer detectable in the sera. This phenomenon was not due to serum storage: similar results were obtained with fresh samples and with samples stored at −20 °C.

This phenomenon, well-known as the "serum effect," has been described for other proteins (3, 4) and is of particular interest in the case of IL2, because of the biological role of this analyte. The serum effect might be attributable to the presence of increased IL2 receptors in serum of patients with lymphoproliferative disorders (5, 6), but this would not account for the serum effect observed in healthy controls.

We plan to characterize the protein responsible for IL2 "quenching" and to evaluate whether its presence is also correlated with the disappearance of biological activity.

References

Clinical Evaluation of a Fluorescence Polarization Immunoassay for Quantifying C-Reactive Protein, José M. González Buitrago, Fernando Cava, Antonio Gómez del Campo, José C. Moyano, and José A. Navajo (Servicio de Análisis Clínicos, Hospital Virgen de la Vega, 37007 Salamanca, Spain)

The Abbott TDX analyzer (Abbott Laboratories, Chicago, IL) is easy to run and well-suited for urgent analyses. We evaluated a fluorescence polarization immunoassay (FPIA)