tHcy and reduces assay time and cost. It may also enhance the assessment of methionine loading as a tool for the investigation of hyperhomocystinemia and the potential role of methionine as an antioxidant [14]. It offers a rapid and simple alternative to the separate assay of methionine by conventional amino acid chromatography or tandem mass spectrometry [15] and is an attractive alternative to the simultaneous assay of homocysteine and methionine by GC-MS [16].

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References

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The Sia Euglobulin Precipitation Test Revisited

To the Editor:
The Sia test (Sia euglobulin precipitation test) was first described more than three-quarters of a century ago for evaluation of the euglobulin fraction in certain infectious diseases [1]. In this test, serum is diluted with water so that the ionic strength of the serum is decreased, resulting in the precipitation of euglobulins and macroglobulin [2]. Later, positivity of the Sia test was demonstrated in conjunction with clonal gammapathies [3–6]. A more high-tech version of this simple test has been encountered with use of the Paramax™ chemistry analyzers [7].

When we tested a sample on our Dade Paramax 720 ZX analyzer and obtained hemolysis/lipemia warnings on all tests, even though the plasma was not visibly hemolytic/lipemic, we became suspicious of a dilution of the sample blank cuvette by adding 2.0 mL of H2O to 50 µL of serum [2]. When the mixture was visibly cloudy, cases were referred for serum protein electrophoresis.

Four cases of monoclonal gammopathy detected by this technique were described in a Paramax technical bulletin [7]. Over ~2 years, a total of 61 cases of this kind have been observed in our laboratory. Of these, 41 revealed monoclonal or biclonal gammopathies; the other 20 were polyclonal. Thirty-three of these clonal proteins were further characterized by immunoelectrophoresis (18 IgM kappa, 5 IgM lambda, 8 IgG kappa, and 2 IgG lambda).

Although clinical follow-up has been incomplete, four cases of lymphoproliferative disease have been reported (one case each of multiple myeloma, Waldenstrom macroglobulinemia, chronic lymphocytic leukemia, and malignant lymphoma).

Although the Sia test is now largely thought of as being of only historical interest, these cases reveal the utility of understanding such “obsolete” tests and how they may be applied to the modern era of automated chemistry.

References

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