LETTERS AND CORRECTIONS

More on History of Blood Coagulation

To the Editor.—As a student of the history of blood coagulation and the originator of the low-dose heparin plan in the prevention of vein thrombosis and pulmonary thromboembolism I was pleased to read the award lecture by Charles A. Owen, Jr., on H. P. Smith’s “Place in the History of Blood Coagulation” in the April 1984 issue.

My successful approach to the prevention of thrombosis and embolism was prompted by my discovery of the role of the pulmonary megakaryocytes and their platelet production. I do believe that Dr. Owen may have had me in mind among the “many others” whom he had failed to mention by name. I hope so!

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Semantic Errors

To the Editor.—Further to the comments of Fung and Lo about “false positive rate,” I believe that semantic errors are widespread in diagnostic immunology. Statements such as “Sm antibody is found almost exclusively in systemic lupus” and “over 90% of thyroiditis patients have auto-antibodies against either cell microsomal antigen, thyroglobulin or both” exemplify this. Several years ago, when using an agglutination test kit for rheumatoid factors, we encountered difficulties because some sera gave results intermediate between those of the so-called negative and positive control sera. In tests of many kinds, the observer can judge only “less than,” “equal to,” or “greater than” the reference preparation. By the correct use of standards, the lowest level at which the material is detectable can be established, but “not detectable” is not equivalent to “absent.”

As analytic technics increase in sensitivity the ubiquitous occurrence of auto-antibodies, which was suggested by Gra-bar, is being recognized more widely and the need for rigorous definition of terms such as sensitivity and specificity is becoming more apparent.

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References

Correction

To the Editor.—In a recent letter, I suggested that Dr. Patrick Farley’s case of normal RDW in vitamin B12 deficiency was due probably to a change in instruments. At the time of that letter, this had been what I have been told had occurred. I was misinformed. In fact, Dr. Farley used the same instrument throughout, and he is not responsible for my erroneous information. By the time I learned that, my response to his letter was in print. The mistake made of confusing one machine’s RDW with another’s is common but not the explanation in this case. Rather, as speculated, early, nonanemic vitamin B12 deficiency may occur so gradually that macrocytosis may at a given point have changed so slowly as to allow (infrequently, as Dr. Farley notes) normal RDW.

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References

Editor’s Note

We also need to differentiate diagnostic from analytic sensitivity and specificity. The latter refer to the smallest concentration or smallest change in concentration of the analyte which can be detected (analytic sensitivity) and to ability of the test system to react only to the analyte of interest (analytic specificity); whereas the former refer to ability of a diagnostic test result to be positive in patients with the disease of interest (diagnostic sensitivity) and to be negative in patients who do not have the disease of interest (diagnostic specificity). The two types of sensitivity and specificity have a varying relationship depending, in part, on choice of decision points for diagnostic interpretation.