Correspondence

On the Meaning of the Erythrocyte Sedimentation Rate

To the Editor

I refer to some interesting data concerning the clinical significance of the results obtained with the TEST 1 instrument reported in the article by Cha et al., in which erythrocyte sedimentation rate (ESR) data obtained using the TEST 1 were compared with those obtained with the manual reference method according to the International Council for Standardization in Haematology. The authors, in fact, report a correlation of ESR data obtained with the TEST 1 better than the one obtained with Westergren, which is the reference method. The data reported in the article can be superimposed, as regards the correlation between TEST 1 and Westergren, on those obtained by my working group in 2000; our conclusion was that the unsatisfactory correlation between the TEST 1 and the reference method might not be attributed to inaccuracy of the method but rather to the fact that the data resulting from the TEST 1 are something other than an ESR and, therefore, represent a different inflammation marker. This conviction is enhanced by the aforementioned article and raises questions about the values resulting from the TEST 1 as a surrogate of an ESR. I refer to part A of Figure 1 of the article by Cha et al.: there is very high data dispersion (also evidenced by analyzing data according to Bland and Altman), and there are very high values of “TEST 1 ESR,” while they compare as a normal or slightly elevated result with the Westergren method.

One must consider how these ESR values are interpreted. Generations of physicians have been used to basing some of their clinical decisions on an ESR range that has remained unchanged for decades, legitimized by its long-lasting use in everyday practice and in a wide range of clinical studies. If indeed, as it seems, the data of “TEST 1 ESR” have a different correlation against the Westergren ESR with other inflammation markers, is there not a risk of confusing a physician who requests an ESR test, classified according to what has always been his or her experience in the general pathophysiologic context of the patient, by giving him or her a datum that is not exactly ESR? Moreover, if TEST 1 data provide more information than the traditional ESR, is there not a requirement for further prospective studies that may confirm its informational qualities? Already others in the past have raised doubts and questions about the ESR data obtained with the TEST 1, but the responses are not fully convincing as they are not supported by enough scientific and clinical evidences.

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References