Erythropoietin in CRF

Z.	Zeev	Korshun
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Dear Sir,

I would like to bring the following to your attention. In the discussion to the article Is the Erythropoietin-Hematocrit Feedback Control Operative in CFR ? [Nephron 31; 229-235, 1982], the authors postulate that 'suppression of the reticulocyte counts by either 500 or 1,000 ml RBC is clearly recognised'. This observation led them to suggest 'the existence of an operative feedback control between the hematocrit and the kinetics of reticulocytes in all of the investigated patients'. More than this, the observed changes in reticulocyte counts without simultaneous changes in erythropoietin levels serve as the basis for conclusions about noninvolvement of erythropoietin in the feedback control of erythropoiesis in the investigated patients.

Nevertheless, the reticulocyte counts cited are raw data, and are not corrected for anemia. If we take into consideration that the hematocrit levels changed by up to +273% and the reticulocyte counts decreased to 70-30% simultaneously during the experiments, it is obvious that absolute reticulocyte counts corrected to anemia have not changed significantly. Therefore, there was no change in the erythropoiesis rates observed, and no clear evidence of operative feedback control between the hematocrit and the reticulocyte kinetics.

I would suggest that if we take into consideration the points raised, the conclusion of the study presented would be that, in the investigated CFR patients, the erythropoietin levels are not only relatively low but that they are also not influenced by changes in the hematocrit values. On the other hand, there is evidence that the reticulocyte kinetics is still under erythropoietin control (possibly in a new steady state condition), or, at least, that there is no evidence of the existence of a hematocrit-erythropoiesis feedback control which operates independent of erythropoietin.