Folic Acid Supplementation Improves Erythropoietin Response

W. Wolfgang Pronai
Department of Internal Medicine, Section of Nephrology, Dialysis Unit, Allgemeines öffentliches Krankenhaus der Barmherzigen Brüder, Eisenstadt, Austria

Dr. Wolfgang Pronai, Internist, Esterhazystrasse 26, A-7000 Eisenstadt (Austria)

Dear Sir

Red cell folic acid (FA) gives better information on folic acid stores, but this method is not generally available in laboratories. So far we can agree with Portolés et al. [1]. Concerning the other comments of these authors, we could not find any constructive after-view.

As far as toxicity is concerned, the only accepted side effect of FA is the possible mistreatment of a patient who has vitamin B12 deficiency and the perpetuation of the neurological defects caused by the B12 deficiency itself (and not by FA!). Mention our quote: ‘Under these circumstances and after the exclusion of other interfering factors ...’.

Portolés treated 1 (!) patient with FA, but unfortunately did not comment on the patient’s MCV of red cells. I would call this a ‘methodological issue...’.

Indeed we did not use ‘excessive doses’ of erythropoietin (EPO). This was our definite aim: to reduce the dose of a very expensive drug by administering a very cheap and harmless substance. The economic use of pharmaceutical benefits is considered a great goal in all countries.

Rising MCV in some EPO-treated patients has been observed, although the mechanism is unknown. So why not accept the idea that there is a higher demand in FA under EPO therapy, especially as this situation is reversed by FA substitution? The same effect – higher levels than normal are necessary under EPO treatment – is known and well accepted in iron metabolism under EPO treatment.

So we can only repeat our conclusion: Under these circumstances and after the exclusion of other interfering factors, the additional administration of FA could economize EPO treatment when observing rising MCV.

Further studies are needed to determine the necessary dose of FA supplementation. It may be difficult to recruit large numbers of EPO-treated patients without prior FA supplementation. Almost all preparations of water-soluble vitamins used for hemodialysis patients worldwide include FA, which Portolés believes to be so dangerous.

Reference