

“arbitrary assumptions on model parameters like the glomerular transmembrane hydraulic pressure and the ultrafiltration coefficient” is incorrect since the theoretical model depends only on one assumed parameter, the glomerular transmembrane pressure. Assuming this parameter, the value of the ultrafiltration coefficient is consequently derived. In addition, we and others have shown that the influence of the glomerular transmembrane pressure on the calculated shunt parameter omega is negligible [5, 6]. Thus, the criticism that no unique model can be identified is not appropriate.

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The statement that folate supraphysiological levels in uremic patients do not cause harm should not go unchallenged

To the Editor: The excellent paper by De Vriese *et al* in a recent issue of *Kidney International* on folate for cardiovascular disease in uremia largely underestimates the risk of folate overdose [1]. The suggestion that “high doses of folic acid are well tolerated and safe” takes root from four studies with 4 to 8 weeks and 12 to 17 months

of follow-up. From one 10-year-old reference is the message that “routine measurement of vitamin B₁₂ concentrations and inclusion of vitamin B₁₂ in the supplements should completely eliminate . . . the risk of masking vitamin B₁₂ deficiency.” Because close surveillance is suggested to look for adverse effects produced from folate fortification of food in the general population, which increases serum folate from 10.8 to 19.0 ng/mL [2], how can we forecast that in uremic people values as high as 200 to 400 ng/mL are safe over a long time? Treatment for hyperhomocysteinemia in uremic patients results in normal vitamin B₁₂ coupled with very high folate concentrations (Fig. 1). Could such an unbalance derange the biochemical basis of folate/vitamin B₁₂ interrelationship producing a “relative” vitamin B₁₂ deficiency?

Furthermore, no mention is made to other risks of folate overdose [3, 4], some potentially increased in renal disease, including tumor growth, hypersensitivity reactions, direct neurotoxicity, reduced zinc absorption, psychiatric changes, epilepsy, and renal damage (in pre-dialysis patients). Regarding vitamins, it has been clearly demonstrated that the task is not valid that if one that does good is increased that it will do even more good. The same was said about oxygen until it was shown that high doses caused blindness in preterm infants [5].

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Reply from the Authors

Monitoring side effects in thousands of patients receiving 0.4 to 4.0 mg folate and in smaller numbers taking large doses for several years has revealed no evidence for toxicity [1, 2]. In renal failure patients, no side effects have been reported so far, the longest follow-up being 17 months.

Concerns about large-scale folate administration gener-