

Correspondence

Some Comments on Folate

A first reading of the recent paper by Ware¹ provokes both an adverse reaction and a surprise; surprise because a paper critical of a vitamin has found entry into an orthomolecular journal, probably for the first time. On second reading, however, one notices the balancing act of the author. It gradually dawns upon the reader that the paper is not outrightly critical of the vitamin; it is scholarly, informative and balanced. That said, I am left wondering why the issue of mechanisms underneath the purportedly harmful effect of folic acid is not sufficiently discussed. Only the natural killer cell mechanism is discussed. Missing in the paper is the role of methylenetetrahydrofolate reductase (MTHFR) genetic polymorphism. Is it that the harmful unmetabolized folic acid (UMFA) is found only in those cases which have the genetic defect involving MTHFR? In such cases a higher, not lower, dose of folic acid is given. Now, in view of the paper by Ware, perhaps more of folate rather than folic acid should be given to the cases of genetic polymorphism. But then folate is a natural substance, to be obtained from vegetables. Taking high dose of folate through this natural route is costly and not a viable option.

Another mechanism that could be covered in the paper is the histamine factor. High intake of folic acid raises histamine level. Therefore, it is possible that high intake of folic acid would be harmful only in the cases which already have high level of histamine, the histadelics.

In conclusion, perhaps high doses of folic acid will be found harmful only for certain sub-classes of cases.

–Ratan Singh, Ph.D.
ratanpsych@hotmail.com

Author's Reply

I am pleased that Dr. Singh realizes, as was pointed out in the article, that the paper in question is not in general critical of folic acid or anti-vitamin. At issue are high levels of consumption of the synthetic form.

As to why mechanisms, aside from the natural killer cell hypothesis, that might be responsible for the suspected adverse effects of unmetabolized folic acid were not discussed, the reason was the lack of studies that specifically focus on unmetabolized folic acid in this context. It is only recently that the connection with decreased natural killer cell activity is even mentioned in papers on folic acid, and most researchers treat synthetic folic acid and natural folate as identical and appear unaware of the potential for elevated circulating levels of the unmetabolized chemical. When studies are carried out that vary the folic acid/natural folate intake and thus the level of unmetabolized folic acid, its potential independent action is rarely investigated. In fact, one of the objectives of the paper was to encourage researchers to do just this. Such research would help answer the questions posed by Dr. Singh.

–W.R. Ware
Department of Chemistry (Emeritus)
University of Western Ontario,
London, Ontario
warewr@rogers.com

Reference:

1. Ware WR: Raising concerns about unmetabolized folic acid. *J Orthomol Med*, 2008; 23: 43-51.