

PROF. VICTOR HERBERT, M.D., J.D.

Mount Sinai & Bronx V.A. Medical Centers
130 West Kingsbridge Road
Bronx, New York 10468-3922

FAKED
2-26-77
4:55 Pm
EJS


Telephones: Direct: (718) 364-5799; (718) 579-1645
or (718) 584-9000, Ext. 6113, 6114

FAX: (718) 562-9120

E-mail: NUTRISTAR@AOL.COM

Professor of Medicine and Chair
Committee to Strengthen Nutrition
Mount Sinai School of Medicine
New York, New York

Director, Nutrition Research Center
Chief, Mount Sinai Hematology & Nutrition Research Laboratory
At Veterans Affairs Medical Center
Bronx, New York

March 20, 1997

Letter to the Editor

Journal of the American Medical Association

535 North State St.

Chicago, IL 60610

By mail and FAX to 312-464-5824

Folate Supplementation and the Risk of Masking Vitamin B₁₂ Deficiency

TO THE EDITOR :

In the Letters to the Editor in the March 19, 1997 JAMA, Dr. Brantigan was correct and Dr. Tucker et al. were wrong.¹ Unless vitamin B₁₂ is added to all folate fortification and folate supplements, folate fortification will do more harm than good, because it will conceal the anemia that triggers looking for the vitamin B₁₂ deficiency of pernicious anemia which occurs in millions of elderly Americans.²⁻⁶

Dr. Brantigan wrote, "My wife, who had taken folate supplements, developed quite advanced neurologic findings from vitamin B₁₂ deficiency (Ed: presumably due to pernicious anemia) because of the absence of anemia as an alerting symptom." That is exactly what happens to some early-onset pernicious anemia fertile Afro-American females, and millions of the pernicious anemia-developing elderly, if fortification is solely with folic acid.²⁻⁶

Conceding that they found low vitamin B₁₂ concentrations in 18.5% of 694

Framingham Heart Study elderly patients, Tucker et al. agree with Brantigan that "anemia is clearly an inadequate indicator for vitamin B₁₂ status." They then forget what they just wrote and erroneously conclude that, "because low vitamin B₁₂ concentration and anemia were not seen...at the approved fortification level...misdiagnosis due to masking that results from fortification would be unlikely to affect a large portion of the population." Their data leads to the exact opposite conclusion from theirs, namely, that folate fortification is very likely to mask vitamin B₁₂ deficiency in a very significant portion of the elderly population. In their Framingham study, 18.5% had low serum vitamin B₁₂, which, minus the 2.3% with low hemoglobin, leaves 16.2% with masked vitamin B₁₂ deficiency, i.e., masked by their not being anemic. This 16.2% of the Framingham study population will likely progress to full-blown and irreversible vitamin B12 deficiency neuropsychiatric damage if not treated with vitamin B₁₂.²⁻⁶

Sincerely,



Victor Herbert, M.D., J.D.

CA...JAMAIFASUPPL32097

1. Brantigan CO, Tucker KL, Jacques P, Selhub J. Folate supplementation and the risk of masking vitamin B12 deficiency. *JAMA* 1997;277:880-881.
2. Herbert V, Bigaouette J. Call for endorsement of a petition to the Food & Drug Administration to always add vitamin B12 to any folate fortification or supplement. *Am J Clin Nutr* 1997;65:572-573
3. Herbert V, Das KC. Anemias due to nuclear maturation defects (megaloblastic anemias). In: Hurst JW, ed. *Medicine for the Practicing Physician*, Third Ed. Boston & London: Butterworth-Heinemann, 1992;851-857.
4. Herbert V: Don't ignore low serum cobalamin (vitamin B12) levels. *Arch Int Med* 1988;148:1705-~~1733~~1707
5. Lindenbaum J, Healton Eb, Savage DG, et al. Neuropsychiatric disorders caused by cobalamin deficiency in the absence of anemia or macrocytosis. *N Engl J Med* 1988;318:1720-1728,
6. Herbert V. Cobalamin deficiency and neuropsychiatric disorders. *N Engl J Med* 1988;319:1733.