

- infancy. *Proc. Soc. Exper. Biol. & Med.*, 77: 16, 1951.
36. JANDL, J. H. and GABUZDA, G. J., JR. The potentiation of pteroylglutamic acid by ascorbic acid in the anemia of scurvy. *Proc. Soc. Exper. Biol. & Med.*, 84: 452, 1953.
37. JANDL, J. H. and LEAR, A. A. The metabolism of folic acid in cirrhosis. *Ann. Int. Med.*, 45: 1027, 1956.
38. SUAREZ, R. M., SPIES, T. D. and SUAREZ, R. M., JR. The use of folic acid in sprue. *Ann. Int. Med.*, 26: 643, 1947.
39. MARSHALL, R. A. and JANDL, J. H. Responses to "physiologic" doses of folic acid in the megaloblastic anemias. *Arch. Int. Med.*, 105: 352, 1960.
40. SHEEHY, T. W., RABINI, M. E., PERÉZ-SANTIAGO, E., SANTINI, R. and HADDOCK, J. The effect of "minute and titrated" amounts of folic acid on the megaloblastic anemia of tropical sprue. *Blood*, in press.

EDITORIAL COMMENT

As an editorial response to Dr. Sheehy's remarks, first it may be pointed out that his observations that some patients with the megaloblastic anemia of sprue may respond to very small doses of folic acid provides new and important information as to the minimally effective dose of folic acid. Whether these patients, with their multiple deficiencies, including deficiency of vitamin B₁₂, are especially sensitive to folic acid, and whether preliminary therapy with antibiotics may have potentiated their responsiveness, remains to be determined. We look forward to further study of this phenomenon from Dr. Sheehy and his collaborators.

These studies do not particularly bear on the question of what constitutes a "safe" dose level of folic acid in patients with vitamin B₁₂ deficiency. The solution to that question

must be derived from long-term studies of patients with pure vitamin B₁₂ deficiency (pernicious anemia) placed on low doses (i.e., 0.4 mg. or less) of folic acid and compared to a similar group of patients not so treated.

One can make a reasonable argument based on available evidence either for or against the inclusion of small amounts of folic acid (we have recommended 0.1 or 0.2 mg. daily)* in multivitamin preparations. If it can be shown by Dr. Sheehy or others that considerably smaller doses do indeed afford reliable therapy for folic acid deficiency, any potential risk to patients with pernicious anemia could presumably be still further reduced by adopting a lower dose level of folic acid for general use. However, it should be realized that deficiency of folic acid is common; at the Boston City Hospital, at least, it is considerably more frequent than vitamin B₁₂ deficiency. In our opinion, it would be a pity to deny this nutrient to the many because of the unproved possibility that small doses of folic acid taken for a long period might mask the clinical picture of some unrecognized cases of pernicious anemia. At present it would seem the lesser of two risks to permit small amounts of folic acid to be included in multivitamins preparations pending further information, than to ban such use prematurely.

JAMES H. JANDL, M.D.
CHARLES S. DAVIDSON, M.D.
Thorndike Memorial Laboratory
Boston City Hospital
Boston, Massachusetts

* DAVIDSON, C. S. and JANDL, J. H. On the daily allowance for folic acid. *Am. J. Clin. Nutrition*, 7: 711, 1959.