

Abstract

Am J Clin Nutr. 1994 Jul;60(1):2-11.

Prevalence of cobalamin deficiency in the Framingham elderly population.

Lindenbaum J, Rosenberg IH, Wilson PW, Stabler SP, Allen RH.

Department of Medicine, Columbia-Presbyterian Medical Center, New York, NY 10032.

OBJECTIVE AND METHODS: To determine whether the increased prevalence of low serum cobalamin concentrations in elderly people represents true deficiency, serum concentrations of cobalamin and folate and of metabolites that are sensitive indicators of cobalamin deficiency were measured in 548 surviving members of the original Framingham Study cohort.

RESULTS: Serum cobalamin concentrations < 258 pmol/L were found in 222 subjects (40.5%) compared with 17.9% of younger control subjects ($P < 0.001$). Serum methylmalonic acid and total homocysteine concentrations were markedly elevated in association with cobalamin values < 258 pmol/L in 11.3% and 5.7%, respectively, of the cohort. Both metabolites were increased in 3.8% of the cohort, associated with significantly lower erythrocyte counts and higher mean cell volumes. Serum metabolites correlated best with serum cobalamin values, even when subnormal determinations were excluded. The prevalence of cobalamin deficiency was > or = 12% in a large sample of free-living elderly Americans.

CONCLUSIONS: Many elderly people with "normal" serum vitamin concentrations are metabolically deficient in cobalamin or folate.

PMID: 8017332

FREE FULL TEXT

