

Abstract

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Treatment of vitamin B12 deficiency - Methylcobalamin? Cyancobalamin? Hydroxocobalamin?-clearing the confusion.

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BACKGROUND: Vitamin B12 (cyancobalamin, Cbl) has two active co-enzyme forms, methylcobalamin (MeCbl) and adenosylcobalamin (AdCbl). There has been a paradigm shift in the treatment of vitamin B12 deficiency such that MeCbl is being extensively used and promoted.

SUMMARY: This is despite the fact that both MeCbl and AdCbl are essential and have distinct metabolic fates and functions. MeCbl is primarily involved along with folate in hematopoesis and development of the brain during childhood. Whereas deficiency of AdCbl disturbs the carbohydrate, fat and amino-acid metabolism, and hence interferes with the formation of myelin.

CONCLUSION: Thereby, it is important to treat vitamin B12 deficiency with a combination of MeCbl and AdCbl or hydroxocobalamin or Cbl. Regarding the route, it has been proved that the oral route is comparable to the intramuscular route for rectifying vitamin B12 deficiency.

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