

# Cyanocobalamin Absorption Abnormality in Alcoholics is Improved by Oral Supplementation with a Fermented Papaya-derived Antioxidant

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## ABSTRACT

**Background/Aims:** Thirty alcoholic patients and 24 teetotaler dyspeptic patients were considered and underwent baseline blood chemical evaluation and the Schilling test.

**Methodology:** During gastroscopy, biopsy samples were taken to assay: routine histology, malonyldialdehyde, vitamin E and glutathione concentration and for testing vitamin B12 - Intrinsic Factor binding. Examinations were repeated after 1-week supplementation with Immun'Age.

**Results:** Plasma malonyldialdehyde level and lipid hydroperoxides concentration as well as either malonyldialdehyde and xanthine oxidase concentration in the gastric mucosa in alcoholics were significantly higher than in controls and despite unchanged alcohol consumption, significantly decreased after Immun'Age supplementation.

Gastric mucosal glutathione was markedly depressed in alcoholics and partly recovered after Immun'Age supplementation. Although the alcoholics

showed a normal intrinsic factor secretion in the gastric juice, they exhibited a markedly depressed intrinsic factor-cobalamin binding on the "ex vivo" study. Moreover, nearly 23% of them had an abnormal Schilling test. Both these impairments reverted to normal after Immun'Age supplementation.

**Conclusions:** It can be postulated that the antioxidative action played by Immun'Age, possibly due to its availability substrates for glutathione synthesis as well as to its effects on local oxidative burst from neutrophil. is able to recover a normal cobalamin absorption.

## KEY WORDS:

Cyanocobalamin absorption, Intrinsic factor binding; Free-radical damage; Immun'Age

## ABBREVIATIONS:

Hepatitis B Virus (HBV); Antibodies to Hepatitis B Virus (anti-HCV), High Performance Liquid Chromatography (HPLC), Superoxide Dismutase (SOD), Dual-isotope Technique (DIST) Intrinsic Factor (IF); Thiobarbituric Reactive Substances (TBARS)