

Can rectal vitamin E induce remission in patients with mild to moderate ulcerative colitis?

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It is believed that the generation of an exaggerated intestinal immune response to otherwise innocuous stimuli along with generation of oxygen free radicals plays a key role in the pathophysiology of UC. However, no disease-specific treatment for UC has yet emerged.

Vitamin E is a major lipophilic antioxidant in cellular membranes with excellent antioxidant activities which protects membrane lipids from peroxidation by scavenging not only chain carrying peroxy radicals but also singlet oxygen and superoxide anion radicals. This is especially interesting in case of UC, considering the pivotal role of oxygen free radicals in the genesis of mucosal damage. Given the recent evidence suggesting anti-inflammatory properties for Vitamin E, one may ask whether d-alpha tocopherol, as the dominant vitamin E isomer in plasma with the highest biopotency, can be expected to reduce the development of tissue injury in UC.

A research article to be published on October 21, 2008 in the *World Journal of Gastroenterology* addresses this question. The research team led by Dr. Mirbagheri from Department of Internal Medicine of Amir Alam hospital in Tehran-Iran, report for the first time the preliminary results of an on-going open-label case-series study on clinical and endoscopic changes of disease severity in patients with active UC who received daily rectal doses of d-alpha tocopherol for at least 12 wk.

All 15 participating patients responded dramatically to therapy after 12 weeks, with 9 of them going to clinical remission. The average score of Mayo disease activity index (DAI) started to decrease after second week and remained significantly lower for the remainder of the study. Besides, there was no case of worsening disease activity or report of serious adverse event during the course of study. The observed effect are probably due to antioxidant and anti-inflammatory effects of vitamin E which potently takes effect by local route of administration. At the end of this interesting article the authors suggest that rectal administration of d-alpha tocopherol might be used safely as a new therapeutic modality to reduce the clinical severity of ulcerative colitis without major side effects or complications of current therapies.

Source: World Journal of Gastroenterology

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