ALLERGY, VITAMINS

THE BEST VITAMIN D PAPER IN 2013

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I have probably two candidates here. The first one is by the Cantorna group in October 2013 and provides for the first time a link between between the gut microbiome and oral vitamin D exposure. We all thought that vitamin D has no influence on bacteria as they cannot utilize it. But that doesn't seem to be true as the composition of the microbiome may change.

> Mice that cannot produce 1,25(OH)2D3 [Cyp27b1 (Cyp) knockout (KO)], VDR KO as well as their wild-type littermates were used. Cyp KO and VDR KO mice had more bacteria from the Bacteroidetes and Proteobacteria phyla and fewer bacteria from the Firmicutes and Deferribacteres phyla in the feces compared with wild-type. In particular, there were more beneficial bacteria, including the Lactobacillaceae and Lachnospiraceae families, in feces from Cyp KO and VDR KO mice than in feces from wild-type … Our data demonstrate that vitamin D regulates the gut microbiome and that 1,25(OH)2D3 or VDR deficiency results in dysbiosis, leading to greater susceptibility to injury in the gut.

So while I always thought, oral vitamin D supplementation may have a direct effect on the gut mucosal system, this paper opens a completely new avenue.

The second candidate is the December 2013 landmark paper by Autier about Vitamin D status and ill health: a systematic review that is remarkable as it ultimately gives us a proof that cross-sectional papers may lie. Vitamin D level is a lifestyle marker. Point.

… whether low 25(OH)D is the cause or result of ill health is not known… Investigators of most prospective studies reported moderate to strong inverse associations between 25(OH)D concentrations and cardiovascular diseases, serum lipid concentrations, inflammation, glucose metabolism disorders, weight gain, infectious diseases, multiple sclerosis, mood disorders, declining cognitive function, impaired physical functioning, and all-cause mortality … Results from intervention studies did not show an effect of vitamin D supplementation on disease occurrence