

ALLERGY, VITAMINS

CONTRARY OR CONTRADICTORY

19.10.2007

A forthcoming “Perspectives in asthma” paper in “JACI” by Litonjua and Weiss will be about the vitamin D hypothesis. Although the authors find that

Evidence exists that vitamin D induces a shift in the balance between TH1 and TH2-type cytokines toward TH2 dominance

they make a largely unexpected turn by saying that vitamin DEFICIENCY may be to blame for the asthma epidemic. The basic argumentation is

We hypothesize that as populations grow more prosperous and more Westernized, more time is spent indoors and there is less exposure to sunlight leading to vitamin D deficiency...

Given the immediate and effective vitamin D production in skin and its longterm availability by fat stores I cannot follow their last conclusion. True clinical deficiency would require severe sunlight deprivation like in submarine drivers.

The authors most likely believe that subclinical low levels in pregnancy are leading to allergy as they need to explain their own findings from project Viva. Unfortunately the Gale study (that directly measured vitamin D) arrived at rather opposite results.

I have no clear opinion what is going during pregnancy as the vitamin hypothesis so far is only about the newborn period. Possibly newborns with extremely low vitamin stores may be more susceptible to later supplements? So – if this new idea can be verified by first trimester vitamin serum levels in a forthcoming analysis of project Viva this could be a nice extension of the vitamin D hypothesis. My guess is, that the current proposal is only contrary but not contradictory. At least historical data show that rickets and allergy never met.

