

Hype or hope? Vitamin D in multiple sclerosis

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Hype or hope? Vitamin D in multiple sclerosis
a clinical and immunological perspective

Propositions/Stellingen

1. Low vitamin D levels are only a risk factor for increased disease activity and faster transition to progressive disease at the start of the relapsing remitting multiple sclerosis disease course
2. The interaction of vitamin D with the immune response does not depend on either a single cell type or cytokine, but on a complex interplay between multiple vitamin D sensitive cells
3. To assess the relevance of the *in vitro* immunomodulating effects of vitamin D for the immunopathology of multiple sclerosis in lymph nodes and the central nervous system, finding adequate immunological outcomes to be related to vitamin D supplementation is challenging yet essential.
4. High dose vitamin D₃ supplementation prevents further disturbances within the T cell compartment in early relapsing remitting multiple sclerosis
5. There are probably as much cells sensitive to vitamin D, as diseases associated with low vitamin D levels
6. Little issues are as profound as the mystery between our ears (New Scientist, 2014)
7. The brain lost its immune privilege with the discovery of the cerebral lymphatic system, but gained attention on the neuro-immune interaction
8. Not only positive nothing, but also about negative anything is necessary to fill the gaps in our scientific knowledge and increase innovation
9. The truth only exists, when observed (based on Paulien Genee in "Duel met Paard")
10. The trail towards a good trial is as challenging as the trial towards a good trail
11. Minds are like a parachutes; they function best when open

1. Lage vitamine D niveaus zijn alleen een risicofactor voor een toegenomen ziekteactiviteit en een snellere overgang naar progressieve ziekte aan het begin van het ziekteverloop bij patiënten met relapsing remitting multiple sclerose
2. De interactie van vitamine D met het immuunsysteem hangt niet af van één enkel celtype of cytokine, maar van een complexe wisselwerking tussen verschillende vitamine D gevoelige cellen
3. Om de relevantie van de *in vitro* immunomodulerende effecten van vitamine D op de immunopathologie van multiple sclerose in de lymfeklieren en het centraal zenuwstelsel te onderzoeken, is het uitdagend, maar essentieel, om geschikte immunologisch uitkomstmaten gerelateerd aan vitamine D suppletie te vinden
4. Hoge dosis vitamine D suppletie voorkomt verdere verstoring van het T cel compartiment in vroege relapsing remitting multiple sclerose
5. Er zijn waarschijnlijk net zo veel cellen gevoelig voor vitamine D als ziektes geassocieerd met lage vitamine D niveaus
6. Weinig vraagstukken gaan zo diep als het mysterie tussen onze oren (New Scientist, 2014)
7. Met de ontdekking van het cerebraal lymfatisch stelsel is het brein zijn immunologisch voorrecht verloren, maar heeft de neuro-immun interactie aan aandacht gewonnen
8. Om de gaten in onze wetenschappelijke kennis te dichten en innovatie te vergroten is niet alleen positief niets, maar ook negatief iets noodzakelijk
9. Waarheid bestaat alleen dan, als ze waargenomen wordt (gebaseerd op Paulien Genee in "Duel met Paard")
10. De "trail" naar een goede "trial" is even uitdagend als de "trial" naar een goede "trail"
11. De geest is als een parachute, hij functioneert open het best