Case Report

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Vitamin D Receptor Inactivity (VDR)-A Treatment Target for Many Diseases, Including Covid 19?

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A Case Report

In the Covid 19 pandemic phase, we obtained information about the spike protein that binds to the AT 2 receptor. In the early pandemic phase, I thought about the influence of the VDR on the AT 2 receptor, because the interaction of VDR on the expression of the AT 2 receptor is known. However, numerous other interactions of VDR are also known, especially in 1400 genetic expressions [1-2]. We know from VDR knockout mice that obesity, organ fibrosis, poor wound healing and inactivation of innate immunity are the result [3,7]. My first contact with the VDR problem was triggered in 2014 by a patient with multiple sclerosis who told me about the Marshall Protocol she was using. And this patient›s health was very good compared to the other patients with the same diagnosis in a support group, the others were already in wheelchairs in between. So, in the Marshall protocol [13], patients take up to 40 mg of olmesartan four times a day, and this drug is used for reactivating VDR off label use. because it is actually a sartan antihypertensive. But some patients get Herxheimer reactions because the body›s awakening immune response is sometimes strong. Marshall also published the hypothesis, that cell phone radiation is also a cause of VDR inactivation [14].

Another mechanism for reactivating the VDR is the use of paricalcitol, an analogue to calcitriol with stronger binding affinity [7] This product is under discussion to reduce cytokine storm and fibrosis of organs in patients with ARDS in a covid 19 disease [7]. For the past 9 years I have been looking at the 1.25 OH D3 to 25 OH D3 ratio in most patients in the lab, and especially the autoimmune patients with MS and rheumatism, but also patients with chronic microbial infections such as Lyme disease, EBV, cytomegaly, chlamydia [5,6,9,10,11] and some other intracellular bacteria have extremely low 25 OH D3 levels, but elevated, 1.25 OH D3 levels usually above the normal range of the lab. Typically, a low 25 OH D3 level in summer is a sign of VDR inactivation, so it is not necessary in every patient to look directly at the 1,25 OH D3 level, which is comparatively expensive to determine. The quotient of 1.25 OH D3: 25 OH D3 is very high depending on the patient›s symptoms, usually above 2.5, sometimes 6 or 7. We ignore the factor 1000 between the values of the two markers. (ng/ml to ng/L)

In my patients, there is no one left with severe VDR inactivation, and of the 2000+ patients, most had mild Sars cov-2 infection, no one died, especially in the oldest group. Maybe it›s luck, or maybe it›s a good look at the VDR receptor and therapy. I see the effective and rapid results in migraine after reactivation of the VDR.

Diagram Below

Antimicrobial responses of 1,25 OH D3 are: red inactivation, green activation, for VDR inactivation it is more the other way around [15,4] (Figure 1). For respiratory defence, but also in the gut, a high level of cathelizidine and beta-defensin is very important through good VDR activity. The importance of the VDR is not really often referred to in public science. In the context of the Covid 19 pandemic, VDR activity has now come into sharper focus [7]. Many colleagues do not follow the issue of VDR inactivation. So, it was no wonder that I was approached by my colleagues. In the discussion especially about

the widespread uncritical supplementation of Vit D 3, I was and am a critical voice. With so much criticism, I understood that I needed to do more to provide scientific evidence of inactivation. One possible documentation of VDR activation is the test of immune response before and after activation of the VDR. The results of the case report suggest that it is indeed a different response of the patient›s immune system after treatment. But it is also necessary to have a balance between TH 1 and TH 2, TH 17 and Treg. Regulation towards stimuli for the immune system is only possible if we do not have a fixed position of any of the TH cells.

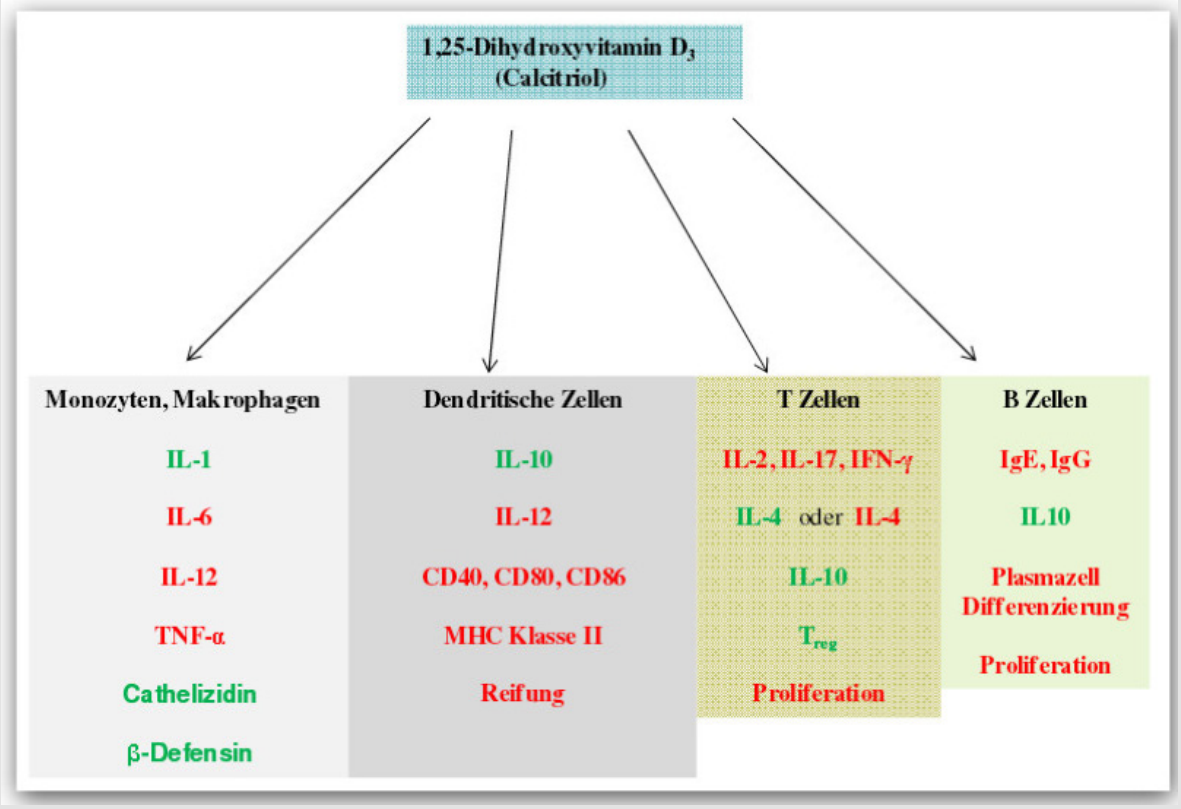

Figure 1.

Material and Methods

TH cell response analysis measures cytokine levels and the ratio between TH cells. The patients› blood was sent directly to the BIOVIS laboratory in Germany by express. After stimulating the TH cells with non-specific stimuli by LPS from bacteria, we see the results. The prerequisite is that the patient does not have an acute infection at the time of analysis. Based on the balance of these cells, the possibility of a change in VDR activity due to treatment can be justified. Of course, an inexpensive and useful measurement of VDR activity is necessary, but a direct measurement of VDR activity is not currently available on the LAB market. The proof of evidence for the hypothesis: VDR inactivated is detectable by the quotient of 1,25 OH D3: 25 OH D3 and the immunbalance between TH cells (Biovis lab report,Figure 2). In two example case reports have we see an altered immune response and a change in the balance of TH cells and also in the quotient between the two vitamin D levels. Normally, with a well-functioning VDR with sufficient vitamin D levels, we see the situation as in the yin/yang diagram, modified by Aschoff [16].

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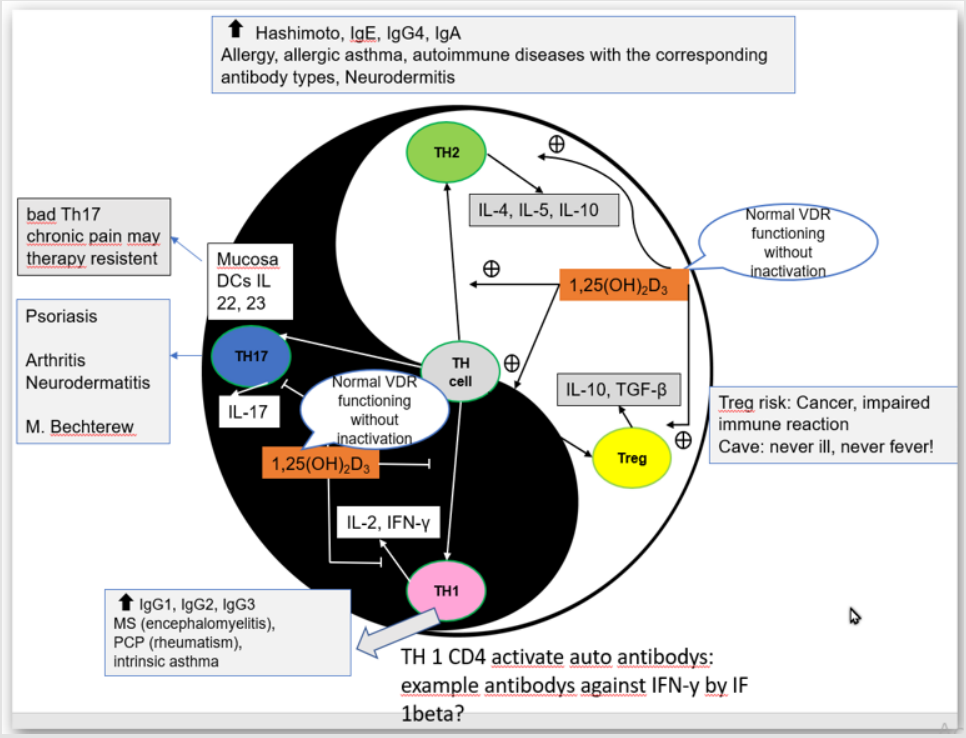

Figure 2.

The evidence for the hypothesis that the VDR is inactivated we get from the quotient of 1.25 OH D3: 25 OH D3 and the immune imbalance between TH cells. When calculating the quotient, it is necessary to adjust the unit behind the measured value, values in nmol must then apply to both values, or ng/ml, so that we can calculate the quotient. Otherwise, we have to convert the values first. In Germany, thanks to me and colleagues, it is now common practice to state the quotient when measuring the two values. It is clear that according to the diagram, the high level of 1.25 OH D3 must lead to a sufficient level as in the Yin/Yang diagram[16] with TH 2 and Treg overweight. In the LAB analysis we see the «paradoxical» situation before treatment, and after treatment we see a normalization of the ratio between TH 1/TH 17 and TH 2/Treg.

MS Patient A

Vitamin D levels before therapy but unter substitution of 25 OH D3:

Vit D3 25 OH: 37,6 ng/ml (normal over 30 ng/ml

Vit D3 1,25 OH D3 (Calcitriol): 74 ng/L (normal 30 until 70 ng/L)

Quotient: 2,1 (normal Marshall et al: under 1,4)

After Treatment quotient 1,5

(Biovis lab report Figure 3-5) Diseases promoted by VDR inactivation according to Marshall,T Proal,A: [13] Diabetes insipidus, diabetes type 1 and 2, ulcerative colitis, Crohn›s disease, epilepsy, fibromyalgia, Hashimoto›s thyroiditis, cardiac arrhythmia, ALS, Asperger›s syndrome, Barret›s oesophagitis, bipolar disorder, manic-depressive illness, dementia, CFS, fatigue syndrome disorders, Lyme disease, sarcoidosis, lupus, MCS (multiple chemical sensitivity), migraine, Bekhterev›s disease, Parkinson›s disease, multiple sclerosis, lupus, MCS (multiple chemical sensitivity), migraine, morbus, morbus, morbus, morbus, morbus, morbus, morbus, morbus, morbus.), migraine, ankylosing spondylitis, Parkinson›s disease, multiple sclerosis, myasthenia gravis, neuropathy, intestines, psoriasis and psoriatic arthritis, Raynaud›s syndrome, rheumatism, kidney stones, osteoarthritis, panic attacks, fungal infections, especially irritable bowel syndrome, Irritable Bowel Syndrome, Postural Orthostat. Tachycardia Syndrome (POTS), Prostatitis, Sympathetic Reflex Dystrophy (Sudeck), Sjörgren›s Syndrome, Autism, Uveitis, Vertigo, Winter Depression, Celiac Disease, Obsessive Compulsive Disorder, Cystitis chronica, Reiter›s Syndrome, Reflux Disease, Restless Leg Syndrome, Rheumatoid Arthritis, Sarcoidosis, Scleroderma, NICO according to Dr. med. dent. Lechner, Aschoff, Rudi [8,18]. In therapy I use a multimodal approach with the use of microimmunotherapy, which uses nanoparticles especially of micro-RNA and cytokines for individual therapy [17].

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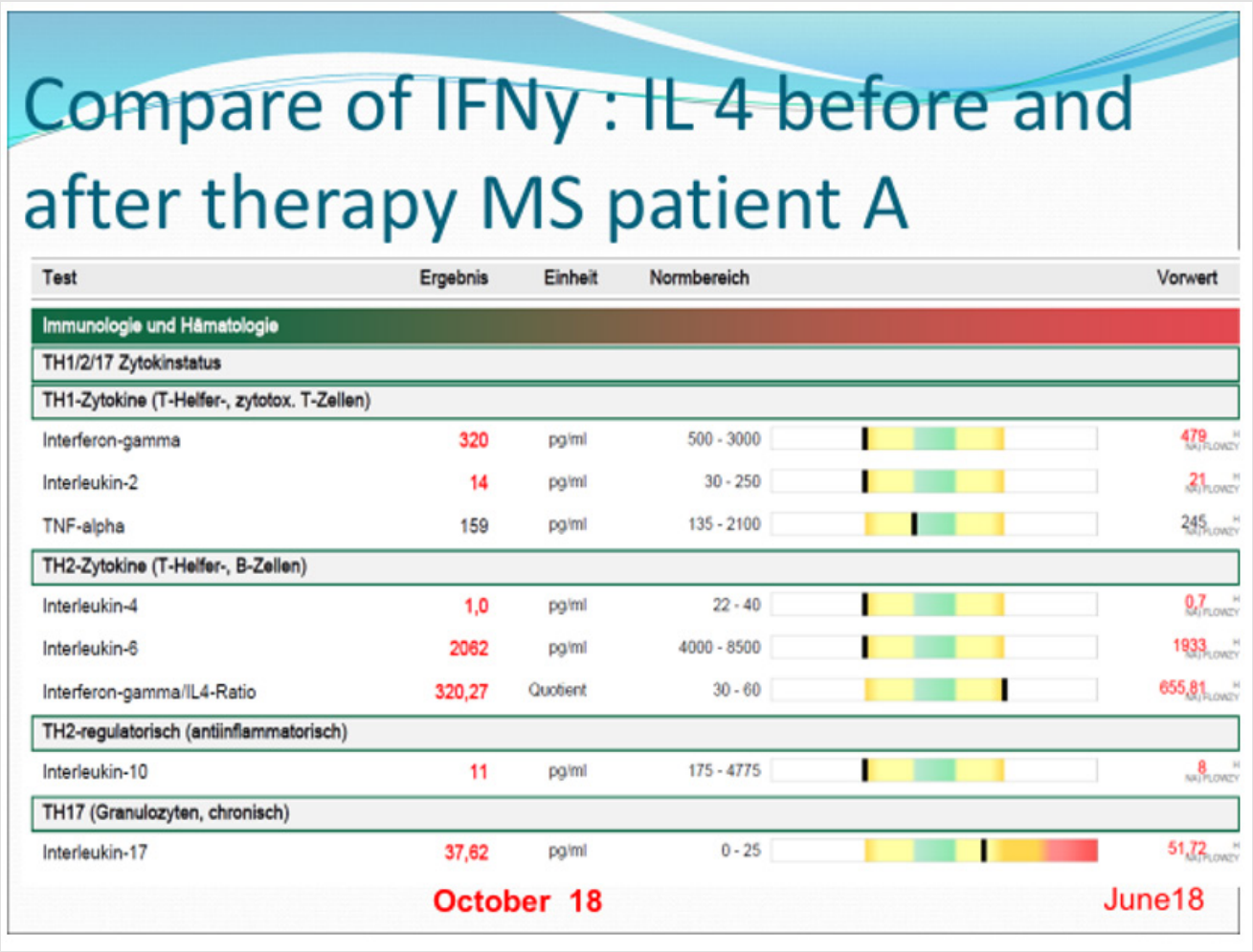

Figure 3.

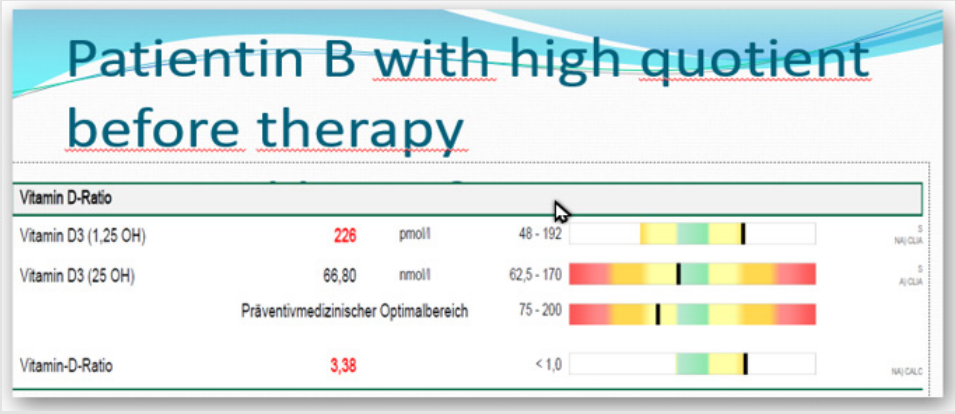

Figure 4: Patient B quotient after treatment 2,2.

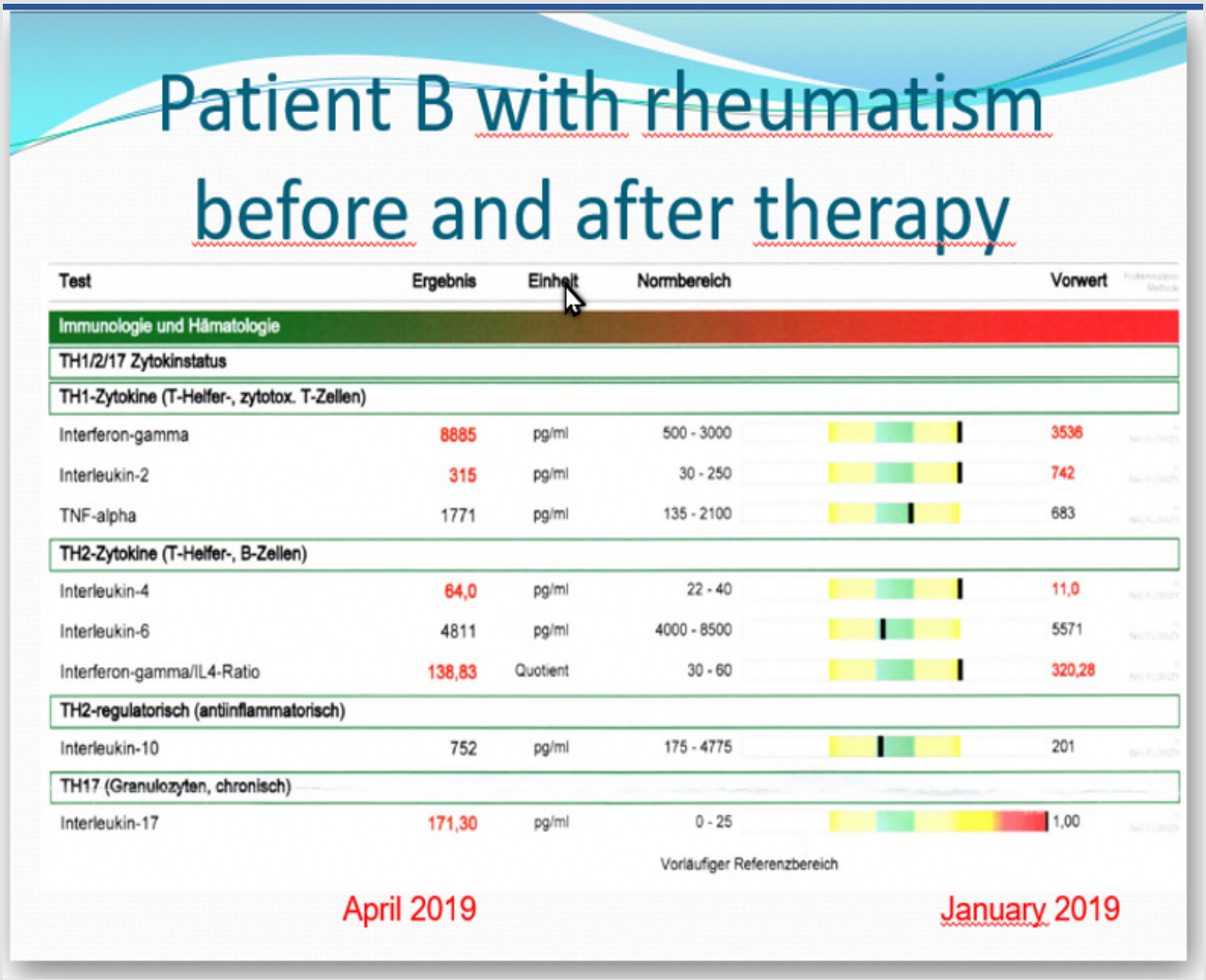

Figure 5.

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