**Assessment of Thyroid Function, Vitamin D and Some Biochemical Variables in Hemodialysis Patients**

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| **Abstract**  Vitamin D binds to the intracellular nuclear receptor VDR, which is expressed in macrophages, monocytes, dendritic cells, T and B lymphocytes, and others. These cells produce the enzymes needed to metabolise vitamin D. Vitamin D receptors interact with 1,25(OH)2D3, generated by 25(OH)D-1-hydroxylase. Vitamin D3 has extensive impacts on numerous lines of defence cells, indicating its importance in immune- mediated changes and autoimmunity. It controls CD4+ T cell differentiation and activation. It suppresses the activation of TCD4+ Th1 cells, lowering the production of  IFN-γ, IL-2, and TNF-α, resulting in enhanced CD4+ Th2 T cell proliferation and production of IL-4, IL-5, and IL-10. Multiple sclerosis symptoms worsen in winter and spring when vitamin D levels are low, according to research. Vitamin D pills reduce these symptoms in women, according to studies. Clinical investigations using vitamin D analogues in individuals with DM1 showed that the condition was managed, with a drop in glycated haemoglobin and an increase in plasma C-peptide levels, indicating the prospective relevance of this therapy. Further research is needed.  Keywords: Thyroid function, Vitamin D, Chronic haemodialysis (CDH), hematology, inflammatory status |

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