PSORIASIS

FREE VITAMIN D: A NEW LABORATORY TOOL IN PATIENTS WITH PSORIASIS

Angela Filoni [1] - Domenico Bonamonte [2] - Ketty Peris [3] - Giacomo Caldarola [4] - Debora Lobreglio [5] - Giambattista Lobreglio [6] - Maurizio Congedo [7]

Dermatology Unit, University Hospital Of Bari, Bari, Italy [1] - Dermatology Unit, University Hospital Of Bari, Rome, Italy [2] - Dermatology Unit, Cattolica University Hospital, Rome, Italy [3] - Dermatology Unit, Cattolica University Hospital, Italy, Italy [4] - Dermatology Unit, Cattolica University Hospital, Bari, Italy [5] - Clinical Pathology Laboratory, Vito Fazzi Hospital, Lecce, Italy [6] - Dermatology Unit, Vito Fazzi Hospital, Lecce, Italy [7]

Introduction: The vitamin D pathway plays an important role in the pathogenesis of psoriasis. Although the determination of serum 25-OH vitamin D is the parameter of choice for evaluating vitamin D status recent reports have suggested the need to analyse the free form of vitamin D to better evaluate its deficiency , because 25 (OH) D plasma levels are conditioned by numerous individual, genetic, environmental and pathological factors.
There are no studies on the measurement of free 25 (OH) D in patients with psoriasis.

Objective: The aims of our work is to evaluate the levels of free 25 (OH) D, bioavailable vitamin D, total vitamin D and other metabolic parameters in patients with chronic psoriasis treated with biotechnological drugs and controls, in order to establish possible alterations of these parameters and their possible use for a better overall management of the disease.

Materials and Methods: We have measured of free 25 (OH) D with a direct quantitative immunoenzymatic method in 48 patients with chronic plaque psoriasis on biologic therapy and 48 controls. The bioavailable vitamin D represents the sum of free 25 (OH) D and the percentage of vitamin D bound to albumin, with a weaker linkage compared to the link with the vitamin D binding protein.

Results: In this study, we have found that a high proportion of patients with psoriasis treated with biological agents (77%) had insufficient serum 25 (OH) D levels. Mean levels of free vitamin D were statistically lower in patients than controls.

Conclusions: The main novelty of our study was the evaluation of the levels of free 25 (OH) D as a biomarker of vitamin D status with a direct immunometric method. This parameter is a more accurate indicator of vitamin D status as it measures only the biologically active fraction of the vitamin.