



Dr. Rajenda Sharma	Name Oscar Burgess	Patient No. 159266
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Height **cm** **Weight** **kg** **Body Mass Index** **Reported** 21.11.2014

ANAMNESE

No clinical information provided

RESULTS OVERVIEW

INFLA-CHECK:

The gene expression panel shows that there is marginal activation of IL-6 and Inteferon gamma and more pronounced activation of the cellular "inflammation switch" NF-kB.

Overall the inflammatory activity in the sample is moderate!

With best regards

PD Dr. med. WP Bieger



Inflammation

InflaCheck®

TNF-alpha	4,306	Qu	< 6,35	
IFN-gamma	0,903	Qu	< 0,464	
IL-6	0,122	Qu	< 0,045	
5-LOX	12,786	Qu	< 14,474	
COX-2	0,903	Qu	< 2,932	
NFkB (IkB)	57,05	Qu	< 18,368	

EXPLANATION

The **I N F L A - C H E C K** gene expression test panel has been specially developed in our laboratory to comprehensively analyze the various forms of inflammation and to check the effectiveness of antiinflammatory medications. Inflammatory reactions are induced by many different agents like infectious agents, chemicals, heavy metals, drugs, radiation, exercise, psych. Stress, oxidants, metabolites, obesity, tumors. These signals activate so-called nuclear transfer factors within the cell which thereafter translocate into the nucleus and activate proinflammatory genes: cytokines, chemokines, enzymes, etc. The major signalling factor is the NF-kB system consisting of an inhibitory compartment (I-kB) and an preformed cytoplasmic transfer component NF-kB.

The proinflammatory cytokines of immune cells and other specialised cell like fat cells, glia cells or vascular endothelia are of predominant importance: TNF-alpha, IL-1β, IL-6, IL-8, IL-12, IFN-gamma - and their counterparts IL-10 or TGF-beta. Equally important are the cyclooxygenases COX-1 or the inducible COX-2 producing prostaglandins; the lipoxygenases (5-LOX) producing leukotrienes (LTC4) and the inducible NO-synthase (iNOS) producing NO, which can react with oxygen metabolites to the highly toxic peroxynitrite. The actual activity of the different inflammatory pathways can be exactly monitored by the quantification of the specific mRNA's in patient peripheral blood immune cells. In some cases it may also be interesting to know the activation status of the tissue destructive matrix metalloproteinases (MMP-9)

The basic Infla-Check test includes the measurement of the mRNA's of IL-6, TNF-alpha, IFN-gamma, COX-2, 5-LOX and NF-kB.