



# BODY FAT LOSS AND HDL CHOLESTEROL IMPROVEMENT IN ADVANCED STAGES OF PARKINSON DISEASE



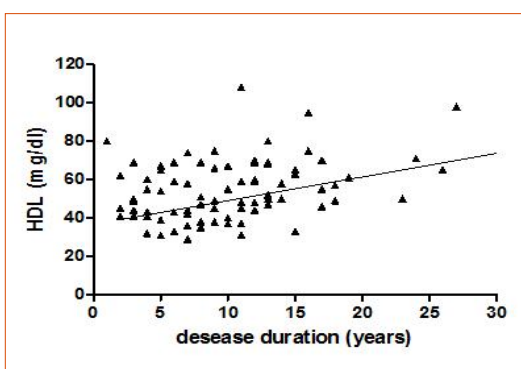
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## Background:

Patients with Parkinson's disease (PD) often experience significant body weight loss (1) and generally have fewer cardiovascular risk factors than the general population (2). The incidence of type 2 diabetes, history of smoking, arterial hypertension, high blood cholesterol and dyslipidemia in PD patients is lower compared to the general population, probably due to a reduction in the sympathetic activity of the autonomic nervous system (3). In literature, reported dyslipidemia data are mainly related to the role of cholesterol levels in the pathogenesis of PD (4). Instead, informations about HDL-cholesterol levels during PD progression are still lacking.

## Aim:

Our objective was to investigate if there were any correlation between duration of PD disease and risk factors prevalence.



## Methods:

A group of patients with PD ( $n=108$ , 48(44.4%)/60(55.6%) F/M, age  $62.5 \pm 9.6$  (range 39-84 years), years of disease  $9.68 \pm 5.43$  (range 1-27 years), mean  $\pm$  SD) and a group of patients with other forms of parkinsonism ( $n=49$ , 23(46.9%)/26(53.1%) F/M, age  $68.8 \pm 7.7$  (range 44-82 years), years of disease  $4.9 \pm 3.3$  (range 1-17 years), mean  $\pm$  SD) were recruited at a referral institute and underwent assessment of nutritional status, with evaluation of anthropometric and biochemical parameters.

## Results:

We observed that in PD patients duration of disease (years) was inversely related to body weight ( $R=-0.2$ ;  $p=0.04$ ), BMI ( $R=-0.2$ ;  $p=0.03$ ) and positively related to HDL cholesterol levels ( $R=0.35$ ,  $p<0.01$ ) (Figure). These correlations were not significant in patients with parkinsonism.

## Discussion:

This study shows that PD patients in advanced stages of the disease experience HDL cholesterol improvement. PD patients, despite a chronic neurological degenerative disease, seem to be metabolically protected.

## References:

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- 4) Hu G, Antikainen R, Jousilahti P. Total cholesterol and the risk of Parkinson disease. *Neurology* 2008; (21):1972-9