



# Atrovastatin activity on proinflammatory markers in hypercolesterolaemia

Ascer Elia

University of São Paulo, Brazil

## Abstract

**Background:** Anti-inflammatory properties of statins are discussed in many trials nowadays.

**Objective:** Atorvastatin activity on proinflammatory markers such as: TNF, IL-1, IL-6, sICAM-1 and PCR, in patients with LDL greater than 160mg/ dL.

**Methods and results:** Two lipid-lowering regimens were taken for 8 weeks. One set of patients (n = 45, 26 men, average  $50 \pm 2$  years of age) was subjected to atorvastatin treatment (20–40 mg/day), plus diet recommendation. Another set of patients (n = 23, 12 men, average  $53 \pm 3$  years of age) went through diet recommendation alone. Both groups were recommended to perform standard physical activity. Plasma samples were collected after overnight fasting at baseline and after 8 weeks for ELISA. The use of atorvastatin when compared to diet alone, resulted in significant ( $P < 0.0001$ ) reductions for: LDL-cholesterol (39.9% versus 4.4%), TNF (21.4% versus 2.9%), IL-6 (22.1% versus 2.0%), IL-1 (16.4% versus 2.7%) and sICAM-1 (9.6% versus 0.1%), respectively. The percentage of patients with CRP levels  $>3$  mg/dL in the atorvastatin group fell from 25.0 to 6.7% ( $P < 0.0001$ ) while in the diet group the reduction was not significant.

**Conclusion:** Atorvastatin showed significant reduction in proinflammatory markers.

This has an important knowledge about possible effects of atorvastatin seen on cardiovascular diseases.

**Keywords:** Cytokines; Intercellular adhesion molecule-1; Hypercholesterolaemia; Inflammatory markers; Atorvastatin

## Biography

Ascer Elia MD has completed his PhD at the age of 40 years in university of São Paulo, BRAZIL. He is the professor of post-graduation in cardiology for masters and PhD students in Hospital Beneficência Portuguesa of São Paulo. He has over 100 publications that have been cited over 500 times, and has been serving as an editorial board member of reputed Journals.



5<sup>th</sup> World Congress on Cardiology and Cardiac Nursing | December 14, 2020

**Citation:** Ascer Elia, Atrovastatin activity on proinflammatory markers in hypercolesterolaemia, Cardio Summit 2020, 5th World Congress on Cardiology and Cardiac Nursing, December 14th, 2020, Page No : 05