

## Association between lipids, fatty acids, LRP1 polymorphism and cardiovascular disease in type 2 diabetes

Chaaba Raja, Mehri Sounira, Layouni Imen, Hammami Sonia and Hammami Mohamed

University of Monastir, Tunisia

### Abstract

Cardiovascular disease and diabetes have risk factors in common such as dyslipidemia. The disruption of lipid and lipoprotein metabolism plays a very important role in the development of atheromatous plaque.

The aim of this work was to study the association between lipids, fatty acids and the 677 C> T polymorphism (rs1799986) of LRP1 with diabetes and cardiovascular disease (CVD). The study included 75 people with diabetes and 185 healthy people. The genotyping of the 677 C> T polymorphism of the LRP1 gene was applied with the PCR-RFLP. The assay of the lipid parameters was carried out by enzymatic methods. The quantification of fatty acids was carried out by GC. The results showed an association between diabetes, LRP1 polymorphism, high cholesterol, hypertriglyceridemia, decreased HDL-C and increased LDL-C. In Diabetic group, patients with CVD had a different acid profile than diabetics without. However, no association between lipids, LRP1 polymorphism and cardiovascular disease has been shown in type 2 diabetics. These results remain preliminary.

### Biography

Raja Chaaba has completed her PhD in Biological Engineering in 2006 and is interested in research about lipids, diabetes, cardiovascular disease and nutrition. She is a member of research laboratory "Nutrition-Functional Foods and Health", Faculty of Medicine, Monastir, Tunisia. She is an Assistant Professor in Higher School of Health Sciences and Technology, Sousse, Tunisia.



[31<sup>st</sup> International Conference on Cardiology and Heart Failure](#) | November 05, 2021

**Citation:** Chaaba Raja, Association between lipids, fatty acids, LRP1 polymorphism and cardiovascular disease in type 2 diabetes, Heart Summit 2021, 31<sup>st</sup> International Conference on Cardiology and Heart Failure, November 05, 2021, 03