Beneficial effects of Ketogenic Diet on Nonalcoholic steatohepatitis in obese mice model


1. UR3072 - Mitochondria, oxidative stress and muscular protection, CRBS, University of Strasbourg, Strasbourg, France

INTRODUCTION

Obesity is associated with a low-grade inflammation, characterized by the secretion of inflammatory mediators, that contribute to non-alcoholic fatty liver disease (NAFLD) development (1). Steatosis may be complicated by hepatocellular injury and liver inflammation (steatohepatitis or NASH) (2). Ketogenic diet (KD), a high-fat and low-carbohydrate diet, seems to present anti-inflammatory properties which could reduce NAFLD development (3). However, the mechanisms involved in its beneficial effects remain unclear. This study aims to evaluate the effect of 6-week Ketogenic but isocaloric Diet on NASH development in obese mice.

RESULTS

Figure 1: Effect of KD on dietary-induced obesity

Figure 2: KD decreases liver final weight (A), prevents from hepatomegaly (B) and reduce and steatohepatitis (C). Black arrows point lobular inflammation; dotted-line arrows point hepatocellular ballooning.

Figure 3: Effects of KD on inflammatory (IL6, IL1b, TNFa, TGFβ), anti-inflammatory (IL10) and collagen (Col1a1) genes expression.

DISCUSSION

REFERENCES


Anouk.charlot@etu.unistra.fr
Joffrey.zoll@unistra.fr