

Grape-seed proanthocyanidin extract reduces body weight gain and liver fat accumulation in aged female rats fed with cafeteria diet

Authors: Marta Sierra-Cruz, Alba Miguéns-Gómez, Carme Grau-Bové, Esther Rodríguez-Gallego, Mayte Blay, Montserrat Pinent, Anna Ardévol, Ximena Terra, Raúl Beltrán-Debón. MoBioFood Research Group, Department of Biochemistry and Biotechnology, Universitat Rovira i Virgili (Tarragona, Spain)



INTRODUCTION

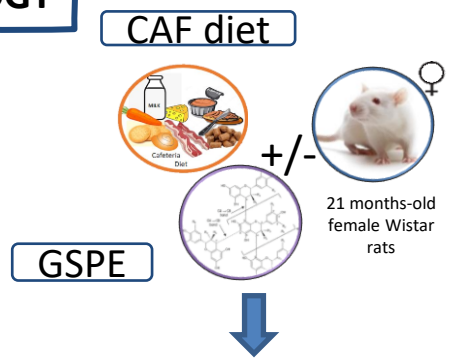
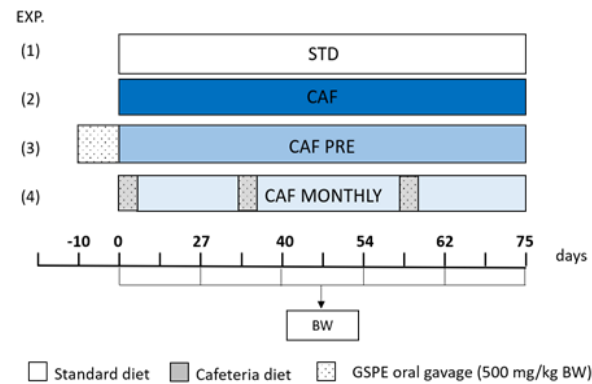
Obesity and aging are current issues of global concern associated with metabolic syndrome (MetS), especially affecting adiposity distribution, insulin resistance and low-grade inflammation. Grape-seed proanthocyanidins (GSPE) have demonstrated to revert metabolic syndrome's features in young animal models of obesity.

OBJECTIVES

To evaluate the effects of GSPE against obesity when administered either as a preventive or simultaneous treatment to aged rats fed with cafeteria diet (CAF diet).

METHODOLOGY

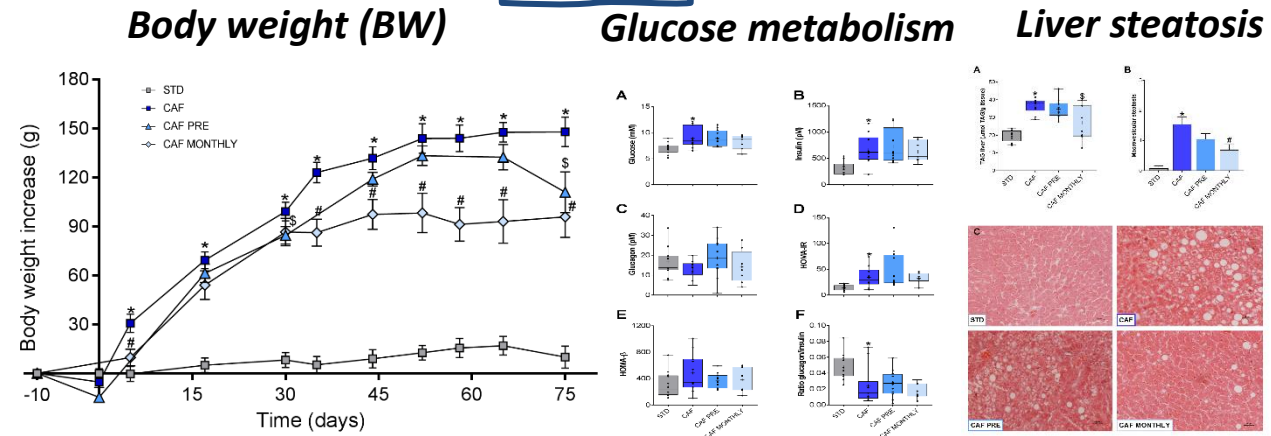
Experimental design



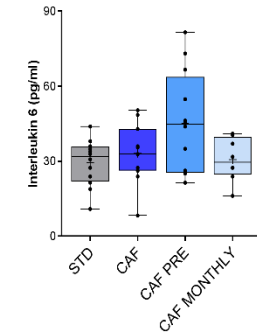
Evaluation of MetS features

Kruskal-Wallis and Mann-Whitney non-parametric statistical tests. p-values < 0.05 considered statistically significant.

RESULTS



Systemic inflammation



Simultaneous-GSPE treatment significantly reduced BW gain and macrovesicular steatosis in liver due to the CAF diet. GSPE treatment did not affect glucose-related metabolism alterations. Neither the CAF diet nor the GSPE treatment induced changes in systemic inflammation.

CONCLUSIONS

GSPE effects reverting MetS features are age-dependent and lean on the administration time.

References:
 1. Ginés et al. *Nutrients* 2018; 10:315.
 2. Grau-Bové et al. *Nutrients* 2020; 12(12):3647
 3. Gil-Cardoso et al. *British Journal of Nutrition* 2017; 117 (2):218-229.
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