

METFORMIN TREATMENT IMPROVES THE LIPID PROFILE OF ADULT MALE BALB/C MICE

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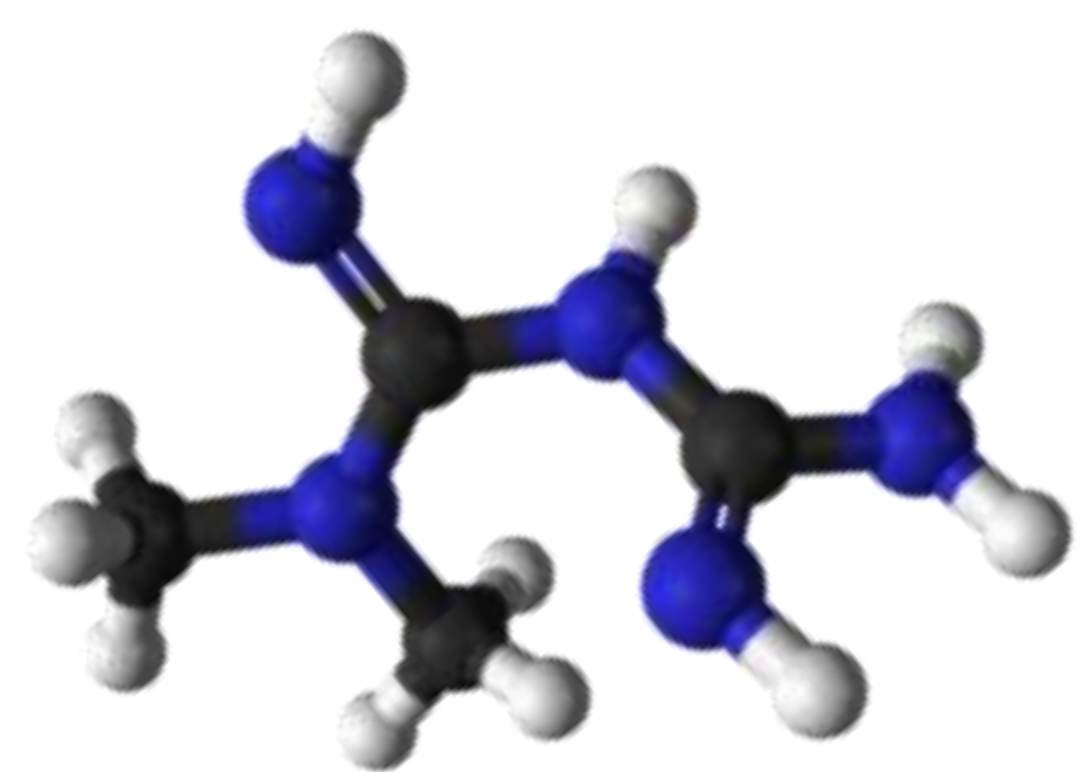
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Introduction

Metformin is a drug widely used in the treatment of type 2 diabetes, derived from the guanidine group, the active compound comes from *Galega officinalis*, known as a medicinal herb that has potential inhibitor of gluconeogenesis. Studies have shown that the mechanism of action goes beyond glucose metabolism, metformin is also capable of improving body weight, food intake, and lipid metabolism parameters. Thus, we hypothesized that the metformin treatment in healthy animals could also bring positive results to the metabolism.



1,1-dimethylbiguanide



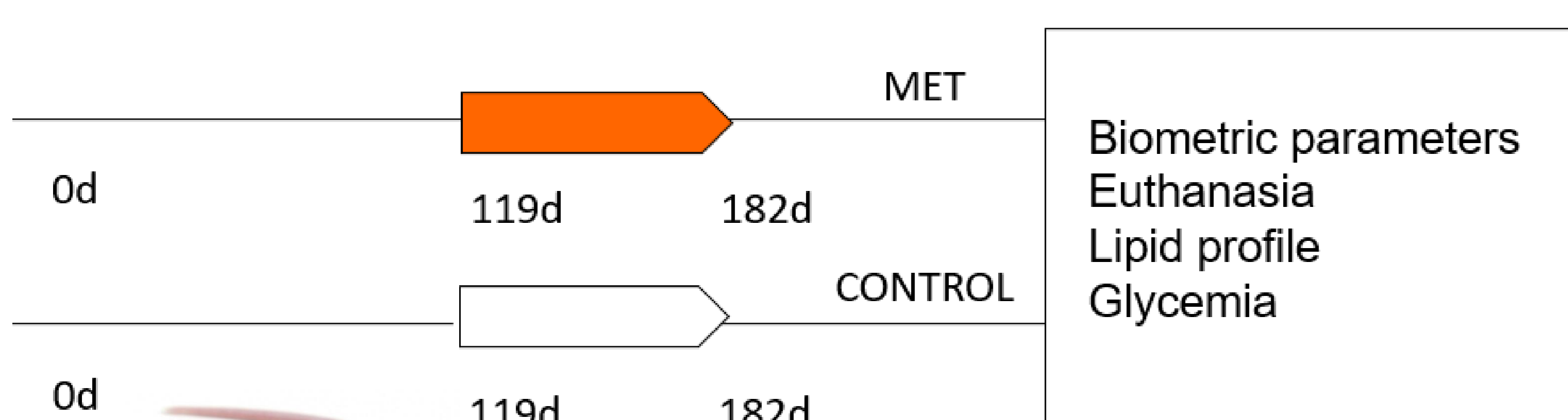
Objectives

We aim to evaluate the biometric parameters and lipid profile of adult male mice treated with metformin.

Methodology

The animals are maintained in the Sectorial Bioterium of the Secretion Cell Biology Laboratory. The treatment with metformin was performed from 119 to 182 days of life, where 0.06 mg/ml was diluted in free drinking water.

Control (n= 8 litters) and Met (n= 2 litters)



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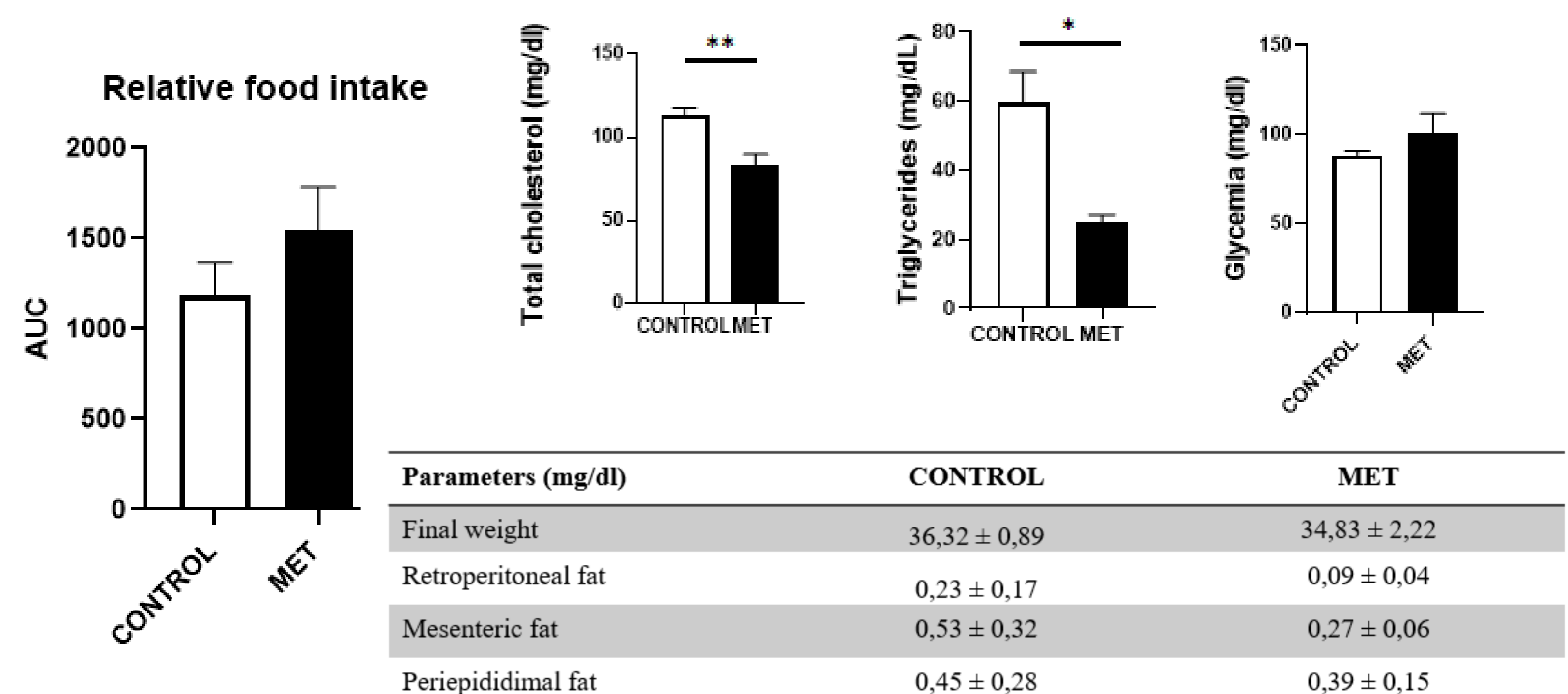


Balb/c mice



Results

We observed that the body weight, relative food intake, and fat stores did not change with the treatment. However, total cholesterol and triglycerides in the Met group are reduced by approximately 64% ($p < 0.005$) and 42% ($p < 0.05$) respectively. We did not observe a difference in blood glucose between groups. Therefore, we concluded that metformin treatment administered later in life improves lipid parameters in adult male Balb/c mice without altering biometric parameters.



Conclusions

Therefore, we concluded that metformin treatment administered later in life improves lipid parameters in adult male Balb/c mice without altering biometric parameters.

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