Dietary intake of AIN-93 standard diet induces fatty liver with altered hepatic fatty acid profile in Wistar rats

References


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The critical reflection brought by the letter from Garla et al. about our findings on the effects of AIN-93 standard diet in Wistar rats presents interesting elements.

Concerning the arguments about the ad libitum regime in the diet offer, although well founded and indeed a possible triggering factor of the observed hepatic steatosis, we would like to remind that this procedure was similarly adopted for all groups and even then, the groups fed with the commercial diet did not exhibit a more modest change in the histological pattern (commercial diet group – 1 month) or exhibited the commercial diet group – 4 months), when compared to the groups fed with the AIN-93 diet; it means different metabolic effects of the diets and a worse impact caused by the AIN-93. Therefore, the argument that the AIN-93 formulation promoted hepatic steatosis, unlike the commercial diet and regardless of the offering period, becomes relevant.

It is pertinent to indicate, in addition to the group’s own experience in previous experimental protocols, that liver and even kidney changes were associated with the use of AIN-93 diet, according to reports from other authors, corroborating the findings of our investigation.

Regarding the handling of the formulation, an equally important concern, we recognize that the use of industrialized formulas offers greater standardization assurance of planned dietary treatments, but we take the opportunity to point out that besides the cautious control of AIN-93 diet preparation and storage (4°C for 15 days at maximum) in the study under discussion, similar liver abnormalities results were found in a recent study conducted by the group in which this diet was purchased ready to use from a specialized commercial laboratory, leading us to confirm consistent the data.

References


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