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CORRECTION

Correction to: Abstracts

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The author names of abstract **PS-03-011** were presented incorrectly in the original publication (Last Name initial and First Name presented). The author names have been corrected. In addition, the authors wish to clarify the Funding details related to their abstract. The abstract is included in full below – no changes have been made to the abstract beyond listing the Funding information.

PS-03-011

Impact of thiadiazines and lipoic acid on protection of pancreatic islets, liver and kidney in diabetic rats

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Background & Objective: Treatment of diabetes mellitus (DM) requires antidiabetic drugs with multiple impacts. Previously, we have identified synthetic 1,3,4-thiadiazine derivatives, L-17 and L-14, which combine antioxidant and antiglycative properties. The aim of the work is to reveal whether L-17 and L-14 can contribute to the pancreatic islet, liver and kidney protection in diabetic rats when compared with a natural antioxidant lipoic acid (LA).
Method: Forty male Wistar rats weighing 220–250 g were used in accordance with the ethical principles of the Directive 2010/63/EU. Alloxan was injected intraperitoneally (300 mg / kg) that provides a model type 1 DM. Aqueous solutions of the drugs were administered intramuscularly (40 mg/kg per day, 12 injections for 30 days) to diabetic and healthy rats. Biochemical, morphometric and immunohistochemical investigations were performed.
Results: We revealed an increase in diameter and cell number in the pancreatic islets after LA and L-17 administration to healthy rats. The injections of L-17, L-14 and LA to diabetic rats were accompanied by a decrease in glucose, glycated hemoglobin and creatinine content, but not the aminotransferase activity (AST, ALT). An increase in the number of β-cells occurred only in diabetic rats treated with LA and L-14.
Conclusion: Therefore, L-17, L-14 and LA reduce hyperglycemia and kidney damage marker without ameliorating liver damage markers in diabetic rats. The impact of L-14 on the β-cell survival is comparable to that of the LA and is more pronounced than that of L-17.

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