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CORRECTION

Correction to: Abstracts

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K. Sokolova[1] · I. Gette[1] · I. Danilova[1] · T. Bulavintseva[1] · M. Abidov[1]

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The authors of **PS-03-018** 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-03-018

Manifestation of the regenerative potential of beta cells of pancreatic islets during modulation of macrophage activity under conditions of experimental diabetes mellitus

K. Sokolova*, I. Gette, I. Danilova, T. Bulavintseva, M. Abidov

*Ural Federal University, Dept. of Natural Science, Yekaterinburg, Russia

Background & Objective: Damaged pancreatic tissue possesses the ability to regenerate itself. Modulation of macrophages activity stimulates regeneration of different tissues, which may express in the increase of size, quantity and functional activity of cells and may use to restore the structure and function of pancreatic islets in therapy of diabetes. Objective: to characterize quantity, functional activity and rate of proliferation of β-cells in the islet of Langerhans at macrophage modulation in experimental diabetes type 2 (CD2).

Method: 15 Wistar rats were divided into 3 groups: 1 – intact, 2–60 days of CD2 (streptozotocin-nicotinamide model), 3 – after 30 days of CD2 3-aminophtalhydrazine derivatives, which modulate macrophage activity, were injected for 30 days to reduce inflammation. Insulin-positive and Ki-67-positive cells were detected in pancreas tissue by immunohistochemistry, using fluorescent marker. Optical density of insulin in β-cells was measured.

Results: Damage of insulin-producing islet apparatus in experimental CD2 involves decreasing of quantity and functional activity of β-cells and quantity of islets as well; proliferation level of β-cells higher than at intact rats, which have no Ki-67 positive cells at all. At macrophage modulation functional activity of β-cells and quantity of Ki-67-positive cells significantly increases in comparison with CD2 and intact meanings.

Conclusion: Appearance of proliferating islet β-cells at experimental diabetes may be considered as a compensation of reducing their quantity. Sharply increased quantity of proliferating islet β-cells in addition with the growth of their functional activity during macrophages modulation may be used in the treatment of diabetes.

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✉ K. Sokolova
kssokolova@bk.ru

[1] Department of Natural Science, Ural Federal University, Institute of Immunology and Physiology UB RAS, Yekaterinburg, Russia