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Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	2014_IJBcRR_15161
Title of the Manuscript:	Peculiarities of Carbonyl Stress on Rats' Model of Diabetes and Rhabdomyolysis
Type of the Article	Original Research Article

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	Peculiarities of carbonyl stress on rats model of diabetes and rhabdomyolysis The title of this paper is intriguing but does not really describe the findings or else the discussion should be reinforced so that the reader can appreciate the peculiarities. The introduction gives a good overview of glycosylation and peroxidation but no references to all the work that has been done on animals and nothing to suggest why muscle disruption with glycerol injections has been undertaken. Thus the aim of the study is very unclear with relation to the model of rhabdomyolysis and unclear why repeating previous studies that have been done on animal models of diabetes in relation to oxidative stress is necessary and what new information the authors hoped to obtain. The material and methods clearly set out. There were 8 groups studied. When were the control and the group 7 animals decapitated? I presume baseline weight and weight at sacrifice were similar or were the diabetic rats much lighter? I	All your remarks have been corrected. The title of the article was changed: "Changes of Carbonyl Stress Parameters in Rats with Diabetes and Rhabdomyolysis" Actually, we don't investigate the peculiarities of carbonyl stress. Glycerol-induced rhabdomyolysis is a well studied model of oxidative stress. The references were added to the introduction. In article: "In our previous studies, it has been demonstrated that carbonyl stress plays an important role in diabetes and RM [20-21]." We don't find similar publications of carbonyl stress investigation in combined diabetes and rhabdomyolysis. There are publications indicated that rhabdomyolysis occur as result of diabetes. Reference was added in introduction: "Singhal PC, Abramovici M, Venkatesan J. Rhabdomyolysis in the hyperosmolal state. Am J Med. 1990; 88 (1):9." Thus, the main idea was to investigate the changes of carbonyl stress parameters in combined diabetes and rhabdomyolysis.



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	am confused because in the text it says that liver was examined at day 4 rather than day 10. The T bars line 164 is given but then on line 168 different values are given?. What does 'all the results were equal to 1" mean? line 218 text for fig 2. There seems to have been no attempt to discuss the results in relation to previous research and no discussion as to the added effect of renal failure on the results of the RM group. There remains the problem as to why the authors chose RM and what the results mean when compared to diabetes Very unclear, what was the hypothesis what was the aim and what the results mean. I do not understand what the relationship of hyperglycaemia in the STZ rats has to do with chemical damage to muscles that cause renal failure. I do not understand how the research was given ethical approval.	This part was added in introduction: “Diabetes mellitus is a group of metabolic diseases characterized by hyperglycemia resulting from defects in insulin secretion and insulin action or both. The chronic hyperglycemia is associated with long-term damage, dysfunction, and failure of normal functioning of various organs, especially the eyes, kidneys, nerves, heart, and blood vessels [14-16]. People with diabetes showed the risk of the development of acute metabolic complications such as diabetic ketoacidosis or hyperglycaemic hyperosmolar nonketotic coma. RM is common in diabetic patients with hyperosmolarity, caused by hyperglycemia. The hyperosmolal state predisposes to the development of RM [17].“ “In our previous studies, it has been demonstrated that carbonyl stress plays an important role in diabetes and RM [20-21].” This part was added to Material and methods: “One week after last streptozotocin injection animals of group 8 were injected by glycerol solution and at 10th day after that the animals of both 7 and 8 groups were decapitated.” At each decapitation, control animal was sacrificed to compare investigated parameters with control. Animals from all groups were lighter than
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		control because of muscles damages and metabolic disturbances. But we didn't analyze these results in our study. Data for TBARS were compared with control, group 4 (RM) and group 7 (diabetes). Than these results were compared between each other for demonstrating of the predominance of lipid peroxidation in STZD. For a better representation of the changes of parameters, all main parameters were equal to control, which was consider as 1. In our previous studies it was investigated that carbonyl stress plays an important role in RM development. Although the main damaging mechanism in rhabdomyolysis is oxidative stress. In the fist part of the study, it was shown the changes of carbonyl stress parameters in model of oxidative stress (RM) and in the model of hyperglycemia (diabetes). In the second part of the investigation, it was shown the changes of carbonyl stress in combined models of these pathologies. Ethical approval was completed with references.
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		