Reviewer's report

Title: Ozonated autohemotherapy: protection of kidneys from ischemia in the nephrectomized rats

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Reviewer: Ersin Fadillioglu

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Foglieni et al investigated the effects of Oxygen-Ozone (O2/O3) autohemotherapy on renal ischemia-reperfusion and the effects of O2/O3 mixture on human umbilical vein endothelial cells (HUVEC). They performed animal experiments on male adult Wistar rats. They firstly applied mono-nephrectomy to avoid the contralateral kidney influence before to autologous blood transfusion with O2 or O2/O3 by intrafemoral infusion. Serum creatinine and blood urea nitrogen were measured from serum samples. They did light microscopic examination with Hematoxylin/Eosin staining to analyze tubular epithelial cell necrosis, tubular dilation, protein casts and medullary congestion. They evaluated sections from O2/O3-treated rats with #NADPH diaphorase for NOS activity. The Greiss reaction was used to analyze nitrite/nitrate levels. The in vitro experiments were done on human umbilical vein endothelial cells. They measured oxygen consumption in HUVEC with ATP and LDH levels. Mitochondria and nuclear activities were measured on living HUVEC by confocal microscopy. They used One-way analysis of variance to analyze the results.

The statistical method is not clear. Did the authors use a parametric or non-parametric test to analyze results? The number of samples in each group was below 30, so that they should firstly evaluate distribution of the groups. If the groups have normal distribution then they can use a parametric test. The distribution of the groups can be analyzed by Shapiro-Wilk test. The second statistical problem of the current study is that the authors did not mention the post hoc test. Which post hoc test did they perform to see the differences between groups?

The authors discussed the effects of renal IR on NO system. There are some other literature that may be used for discussion of iNOS and oxidative stress on reperfusion injury (such as PMID:17083399, PMID:16951275).

There are some grammatical errors. The authors should check it out to correct them.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Needs some language corrections before being published
Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests