Reviewer's report

Title: Protective action of a hexane crude extract of Pterodon emarginatus fruits against oxidative and nitrosative stress induced by acute exercise in rats

Version: 3 Date: 24 May 2005

Reviewer: berkant muammer kayatekin

Reviewer's report:

General
This paper is about the effects of a crude extract of P. emarginatus fruits on oxidative and nitrosative stress induced by acute exercise by electrical stimulation in rats.
This work has some interesting data and deserve to be publish in a international scientific journal. However, some corrections were needed for publishing.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
I have faced some problems to read and understand the design and the results. One of the major problems is experimental design. Materials and methods section should be clearer. All groupings and the number of animals must be well-defined. According to the materials and methods section there were 5 groups. What are the numbers of the animals in each group? The grouping is also very confusing. For example: The 4. group was pre-exercise HCE administrated group. But according to the results, it seems that there were two more subgroups: one was single dose injected (30 min before exercise), and the other was triple dose injected (12h, 6, and 30 min before exercise). In addition some animals were sacrificed in different periods of recovery. These are also subgroups. For example 2. group, just exercised and then divided into three (or 4?) sub groups and sacrificed post exercise 1h, 6.h and 48.h. So, how many groups and animals do you have? (I am fearful to learn the exact number of animals). All groups and animal numbers and all applications to each group should be described in detail in materials and methods section.

Another problem is order of the sections of the manuscript. Clasically it should be ordered as “abstract, introduction, mat and methods, results, discussion and acknowledgements. I recommend authors to put page numbers to the paper. It helps to the reviewer.

Due to the groupings problems, presenting of the results is confusing. Figures and legends should be re-desinged. There is so many groups and so many data. Auothors should find a way to present the data of all groups (clearly of course).

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Materials and methods
1-Ethical approval should be stated.
2-Abbrevations are not so good. Consider to give numbers to the groups.
3-Detailed definitions to the electrical stimulation exercise. Reference should be given for the exercise method. Are the animals tied or boxed during electrical stimulation? Why authors did not use swimming or running exercise?
Results:
1-Figure legends are not clear.
2-Figures are so compressed that the names of the columns are not clear.
3-In fig2, There is two 5-columned groups, exer 6h and exer 48h. What is the comparisons of the
groups in exer6 to their corresponding groups in 48h?
Where is “0” hour and 1h data?
4-Figure 3 and its legend are not clear. It is like a puzzle. Where are brain 6h and liver 48h results in
Fig3B?

References
1-Reference no 25: Writers’ names are wrong. Please look at the “pubmed”.

Kayatekin BM, Gonenc S, Acikgoz O, Uysal N, Dayi A.
Effects of sprint exercise on oxidative stress in skeletal muscle and liver.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research
interests

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:
'I declare that I have no competing interests'
Dr. B. Muammer Kayatekin, Assoc. Prof.