Reviewer's report

Title: Antioxidant defense system and family environment in adolescents with family history of psychosis

Version: 1 Date: 29 April 2012

Reviewer: Anwar Mechri

Reviewer's report:

The title and abstract accurately convey what has been found. The writing is acceptable. However, the question posed by the authors is not well defined and has not been argued. The methods are well described, but have serious limitations. Some conclusions are not adequately supported by the data of this study.

Minor revisions:
Please correct the first references citation in the introduction line 4
Third paragraph of introduction should be referenced: ..."All of these species have been found altered in schizophrenic patients".
The objective of the study is not well formulated at the end of the introduction.

Major revisions:

In the introduction:
The importance of the measurement of the antioxidant defense in unaffected relatives of early onset psychosis patients is not mentioned. Similarly, the rational of the assessment of relationship between antioxidant defense and the familiar environment is not presented. Why the authors suggested that family environment may induce oxidative stress in healthy subjects? The rational for this hypothesis should be formulated.

In the methods:
The design of the study is not clear; all subjects were controls in previously study. A small number of them (n = 14) had second degree relatives with psychotic disorders, but there is no certainty that other subjects had not family history of psychiatric disorders. The differences can be explained by the small group size (HC-FHP) with the risk of under or over estimate.

In the discussion and conclusion:
The hypothesis “that families with relatives of psychosis protect themselves with positive environmental factors such as cohesion and intellectual-cultural activitie” is based solely on the existence of a difference with a small group size. I think that this conclusion can not be justified by these results.

Level of interest: An article of limited interest
Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests.