Reviewer’s report

Title: Bulky DNA adducts in human sperm associated with semen parameters and sperm DNA fragmentation in infertile men: a cross-sectional study

Version: 1 Date: 24 July 2013

Reviewer: Radim J Sram

Reviewer’s report:

Major Compulsory Revisions:
This ms. presents a very nice study, in which was obtained a large number of samples.
To improve the quality of text, authors should still discuss or analyze following items:
p. 1 – “…However, very limited epidemiologic data exist on the potential effects of PAHs exposure on human reproductive functions…” It seems to be peculiar, they do not mention papers by Rubes et al. (Mutat Res 625, 2007:20-28, Mutat Res 683, 2010:9-15), as both papers analyze the relationship between PAHs exposure and sperm DNA damage.
According to the ref. 28 Horak et al. bulky DNA adducts in human sperm were associated with smoking. Therefore it should be preferable to present data for smokers and nonsmokers separately in Tables 2 and 3.

p. 9 – “…We only selected infertile men who may be more “susceptible” to PAHs…” It could be useful to add any information about air pollution in the Nanjing Region, e.g. c-PAHs exposure, life style – diet. As Xia et al. (Environ Sci Technol 43, 2009: 4567-4573) put forward, 1-OH concentration in the urine of Chinese men is 16-fold higher than in U.S. populations.

Minor Essential Revisions:
Fig. 1 – axis y Frequency – there is something wrong with the units – total should be 100%.

Level of interest: An article of importance in its field

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.