Reviewer’s report

Title: Influence of Oral Glutamine Supplementation on Survival Outcomes in Locally Advanced Non-Small Cell Lung Cancer Patients Treated with Concurrent Chemoradiotherapy

Version: 1 Date: 25 April 2012

Reviewer: Peter Stehle

Reviewer’s report:

Major compulsory revisions

1. This MS summarized results of a monocentre retrospective data analysis with the aim to evaluate whether (high dose) oral glutamine supplementation can cause harm in patients with LA-NSCLC. The rationale to perform this analysis remains unclear: the authors themselves mentioned in the Background chapter that glutamine supplements can contribute to reduce the extent of tissue damage caused by CRT. Suddenly in the last paragraph of this chapter, the authors mentioned some “concerns” which have been raised whether glutamine can stimulate tumor growth etc. – unfortunately, no references are cited to support this “hypothesis”!. Is that only a “rumour”? As recently outlined in ref. 39, glutamine can be seen as conditionally indispensable in oncology without the risk to support tumour growth or to decrease survival rates. What is, thus, the reason to present these retrospective data? If the safety (long-term or acute or both?) of glutamine application is the primary goal, survival can not be the unique evaluation variable (as the Title suggest). Moreover, several positive aspects of glutamine treatment (see Table 2) are not adequately honoured. A more “objective” data presentation (eg, Effects of oral glutamine on … in..) may be more adequate.

2. Title. See general comments above.

3. Background. 1st paragraph: It is mandatory to support the comments with actual references. If not existing, this chapter should be deleted.

4. Methods - Inclusion criteria: What about nutritive support of the patients? Is there any information available?

5. Results. See general comments above.

6. Keeping the primary aim of the analysis in mind, data presented in Figure 1 are not motivated.

7. Discussion. Generally, it is difficult to understand that there is an “absence of data on TG stimulating potential …. of glutamine”. In all intervention studies published yet, side effects of oral glutamine would have been reported. Obviously, the study presented was also not planned to evaluate glutamine “toxicity” but only summarizes effects with or without glutamine supplementation.
Consequently, most of the discussion is focused on the beneficial effects of glutamine compared to no glutamine (see also general comments).

8. Conclusions: prospective randomized clinical trials can not be requested to evaluate glutamine toxicity!

Minor essential revisions

9. 2nd paragraph and throughout the MS: the correct standard abbreviation for glutamine is either Gln or Q.

10. Ref. 1 to 4: Rather old – there are several actual reviews available describing clinical effects of glutamine.

11. Table 1: Please, check the p-values given (0.38? 0.42?).

**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, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I have no competing interests to disclose.