Reviewer's report

Title: Massive Tumor Lysis Syndrome and Multi-System Organ Failure Secondary to Replacement of the Liver with Metastatic Melanoma

Version: 1 Date: 8 December 2004

Reviewer: Attila Zalatnai

Reviewer's report:

General
The MS presents a rare case of acute spontaneous tumor lysis syndrome due to multiple hepatic metastases. The clinical symptoms, the laboratory findings and the rapid course all correspond to classical TLS, but the paper leaves some questions unanswered.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
Because this condition is exceedingly rare, the simple description is not enough - the readers may wish to understand the possible mechanisms, and the point is the autopsy. Thousands of massive liver metastasis cases are regularly seen, but TLS is a very rare consequence (it is mainly associated with treated hematological malignancies). Therefore, the findings should be firmly established.
If the cause of TLS in the given case is the massive destruction of melanoma cells, the vast majority of the tumor would be destroyed (interestingly, Fig. 1. shows florid tumorous mass without any sign of lysis). Another question would be the mode of the massive destruction of the tumor cells. Was it a result of necrosis or apoptosis? Was there any predisposing factor of tumor lysis? Was there any thrombosis or obstruction in the hepatic arteries/veins?
The authors mention a significant elevation of LDH that may suggest a massive hepatic necrosis. How did the liver cells look like? Is it possible that the lysis syndrome was resulted from the massive destruction of hepatocytes instead of the tumor cells themselves? If so, was the relationship between the tumor and the liver: was there any massive tumoral embolization in the hepatic vasculature?

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

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No
Declaration of competing interests:

I declare that I have no competing interests.