Reviewer's report

Title: Jejunal microvilli atrophy and reduced nutrient transport in rats with advanced liver cirrhosis: improvement by Insulin-like Growth Factor I (IGF-I)

Version: 3 Date: 29 February 2004

Reviewer: peter L jansen

Reviewer's report:

General
The Pamplona group have been emphasizing the role of IGF-1 in cirrhosis-induced jejunal atrophy now for a number of years. In the paper by Pascual et al AJP 2000;279:G319-324 they showed a decreased transport of l-leucine, l-proline, l-glutamic acid and l-cysteine across the brush border of BBMVs prepared from CCl4-cirrhotic rats. IGF-1 treatment restored the impaired transport activity. They showed that the Vmax of this transport was reduced and the Kt increased for all amino acids tested.

In their report in the AJP 1999;276:g37-G42 they showed an impaired transport of galactose in this model, IGF-1 restored galactose transport and normalized the elongated jejunal microvilli.

In the current report they show a reduced d-galactose, l-leucine, l-proline, l-glutamic acid and l-cystine transport in CCl4-cirrhotic rats. The reduced transport was restored to normal by IGF-1. Vmax is reduced and Kt increased. Elongated microvilli and microvillous atrophy was normalized by IGF-1 treatment.

What is new in the manuscript? I fail to see any new information over and above that already published in their 1999 and 2000 AJP papers. Moreover, this manuscript does not provide us with new insights. For example one wonders about the correlation between the microvillous abnormalities and decreased transport. Unfortunately this manuscript does not enlighten us about this. What is the cause of elongation and atrophy? There is no answer to this question either.

Minor comments
Figure 1A. The curves lack initial data points.
Figures 1 and 2. What is the significance of data points beyond 60 s (galactose) and 180s (amino acids)?

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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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)

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Discretionary Revisions (which the author can choose to ignore)
What next?: Reject because too small an advance to publish in any journal

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests: None