

January 17,2013

To: World Journal of Gastroenterology

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: ESPS Manuscript 589-Review.doc).

Title: Polysomnographic sleep aspects in liver cirrhosis: a case control study

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Name of Journal: *World Journal of Gastroenterology*

ESPS Manuscript NO: 589

The manuscript has been improved according to the suggestions of reviewers.

1. Format has been updated

2. Revision has been made according to the suggestions of the reviewer.

The reviewers' questions are in italic and our replies are right below.

(1) Chronic and heavy drinking alters neurobiological systems of regulating sleep. "The percentage of slow wave sleep increases during nights of drinking and decreases during acute alcohol withdrawal, and may remain decreased after 3-14 months of sobriety" [1]. Thus, can you enlarge the patients of virus hepatitis, then find the difference of this two etiology?

[1] Kirk J. Brower. *Insomnia, alcoholism and relapse, Sleep Medicine Reviews, Vol. 7, No. 6, pp 523-539, 2003.*

We consider this suggestion of great value, but unfortunately it is impossible to us to enlarge the sample of patients whose etiology is viral hepatitis alone.

We are aware of the important role of alcohol in the regulation of sleep. However, our data showed no difference between cirrhotic group and controls concerning slow wave sleep, which was mentioned in Brower (2003), but only differences in concerning REM sleep.

Therefore we treat the data statistically.

Concerning etiology, we had 24 patients with alcohol-related etiology, associated or not with viral hepatitis, and 18 patients with etiologies related only to viral hepatitis or other causes not related to alcoholism. In order to assess the influence of alcoholism on the sleep parameters we divided the patients into two groups: those who had alcoholic etiology (single or associated) and those who had no history of alcoholism. No significant differences were detected between the two groups in our study in the sleep parameters measured except for sleep latency, which was longer in the group without alcoholic etiology (21.68 ± 15.38 vs. 40.53 ± 42.74 , for the alcoholic etiology group and without alcoholic etiology group respectively, $p=0.04$).

We added in Results (see page 8, line 26)

To assess the influence of alcoholism on sleep parameters, we divided the patients into two groups: those who had alcoholic etiology (alone or associated with viral hepatitis; $n=24$) and those who had no history of alcoholism ($n=18$). No significant differences were detected between the two groups in our study for any sleep parameter except sleep latency, which was longer in the group without alcoholic etiology (mean \pm SD : 21.68 ± 15.38 vs. 40.53 ± 42.74 for the alcoholic etiology group and without alcoholic etiology group respectively, $P=0.04$).

And we added in Discussion (see page 11, line 6):

It is widely recognized that chronic alcohol abuse influences sleep parameters [35] and many patients in this study experienced cirrhosis of alcoholic etiology. However, in our study, we did not confirm this influence, perhaps due to the fact that patients had been in withdrawal for at least six months. The absence of differences suggests that LC may be seen as a determining factor of the sleep parameters observed for study in this group. The only difference that was found, in sleep latency, which was longer in the group without alcoholic etiology, cannot be easily explained; considering the effects of alcohol, the expected result would be the opposite of what was actually observed [35].

And we also added in references:

35. **Brower KJ.** Insomnia, alcoholism and relapse. *Sleep Med Rev* 2003; 7:523-39. [PMID: 15018094 DOI: 10.1053/smr.v.2002.0248]

(2) *Body Mass Index (BMI) is an important factor of influence of sleep-disorder. You need to increase it in general characteristics of the two groups.*

We agree with the reviewer and we added this factor in the general characteristics of Table 1.

3. References and typesetting were corrected

Thank you for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,

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