ESPS Peer-review Report

Name of Journal: World Journal of Neurology

ESPS Manuscript NO: 4382

Title: Variation in EAE scores in a mouse model of multiple sclerosis

Reviewer code: 00646404

Science editor: Song, Xiu-Xia

Date sent for review: 2013-06-28 19:05

Date reviewed: 2013-06-28 22:54

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[ ] Grade A (Excellent)	[Y] Grade A: Priority Publishing	Google Search:	[ ] Accept
[Y] Grade B (Very good)	[ ] Grade B: minor language polishing	[ ] Existed	[ ] High priority for publication
[ ] Grade C (Good)	[ ] Grade C: a great deal of language polishing	[ ] No records	
[ ] Grade D (Fair)		BPG Search:	[ ]Rejection
[ ] Grade E (Poor)	[ ] Grade D: rejected	[ ] Existed	[Y] Minor revision
		[ ] No records	[ ] Major revision

COMMENTS TO AUTHORS

This is a nice mini-review pointing out a weakness in the EAE scoring across different labs. However, no suggestion for a homogeneous scoring approach is given. There should be at least a short discussion on how a more homogeneous scoring can be achieved.

ESPS Peer-review Report
Name of Journal: World Journal of Neurology
ESPS Manuscript NO: 4382
Title: Variation in EAE scores in a mouse model of multiple sclerosis
Reviewer code: 00504888
Science editor: Song, Xiu-Xia
Date sent for review: 2013-06-28 19:05
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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[ ] Grade A (Excellent)	[Y] Grade A: Priority Publishing	Google Search:	[ ] Accept
[ ] Grade B (Very good)	[ ] Grade B: minor language polishing	[ ] Existed	[ ] High priority for publication
[Y] Grade C (Good)	[ ] Grade C: a great deal of language polishing	[ ] No records	
[ ] Grade D (Fair)		BPG Search:	[ ]Rejection
[ ] Grade E (Poor)	[ ] Grade D: rejected	[ ] Existed	[ ] Minor revision
		[ ] No records	[Y] Major revision

COMMENTS TO AUTHORS

In this manuscript, the authors discuss differences in EAE scoring methods reported in different manuscripts. This is an important issue that has not been reviewed previously. However, the authors did not discuss several key issues in the EAE score, and their terminology is often misused. The authors should address the concerns by this reviewer. Major concerns 1. Use (misuse) of correct medical terminology contributes to variation of EAE score. In this manuscript, the authors misused some terms, for example, "signs" versus "symptom." "symptom" can be used only for humans, while "signs" can be used for both animals and humans. The authors need to discuss the following key words that are often misused by investigators: sign, symptom, paresis, paralysis, (para)plegia, coordination, flaccid (versus spastic), and ataxia, and should make a table or box including their definitions. 2. Page 4, second paragraph. The authors described EAE, as if there were differences between mouse EAE versus rat EAE. As far as this reviewer knows, there are no reports showing the difference between the two species. These sentences should be rewritten to avoid misleading the readers. 3. Page 4, last paragraph (Page 5, first paragraph). The authors need to define the different disease courses of EAE depending of the enecephalitogenic antigens and animal species and strains. MBP-induced EAE in PL/J mice do not develop relapsing-remitting EAE (see Liblau et al 1997, for example), and MOG33-55 EAE in B6 mice is not "chronic-progressive". Although many EAE researchers have described MOG-EAE in B6 mice as "chronic progressive," this is incorrect. The EAE is monophasic with incomplete recovery (usually no mice show real disease progression during the chronic stage). In contrast, there are several reports showing real primary progressive or secondary progressive EAE, where mice die with disease progression (for example, Tsunoda et al, 2000). 4. Page 6. "righting reflex" needs a more detailed discussion.

Impairment of righting reflex and its scoring system has been used in Theiler's murine encephalomyelitis virus infection, a viral model for multiple sclerosis (by groups of Drs. Moses Rodriguez and Robert S. Fujinami, for example).   This scoring system is useful when animals do not show classical EAE signs.   This scoring system should be introduced as a table.   5. "Weight change" has been used to evaluate EAE in many EAE manuscripts.   It has been shown that weight changes correlated with clinical signs during the acute stage of EAE.   The authors need to discuss the weight changes and EAE scores in detail.   6. "Cumulative" clinical EAE scores have also been used in many EAE manuscripts.   The authors should add a paragraph explaining the cumulative EAE score and its usefulness with references.   7. The authors discuss only the classical EAE signs and its scoring system.   There is another type of EAE, "ataxic type" (Brown and McFarlin, Endoh et al, Greer et al, for example).   The ataxic type of EAE should be explained with its scoring system.   Minor concerns   1. Page 3, the second sentence requires references. 2.   Page 3, lines 6 and 7.   What is the difference between "prevalence" and "incidence"?   3.   Page 3, line 13.   "in time and space" instead of " in time and place"   4.   Page 3, line 14.   "three major type" is inaccurate.   There are four subtypes in MS (see reference #6 by Lublin et al 1996).   5.   Page 3, line 20.   "65% of patients."   This phrase needs references.   6.   Page 4, line 9.   "myelin antigen" instead of "myelin component protein"   7.   Page 4, line 10-11.   "transgenic animals" needs more explanation.   8.   Page 5, line 4.   EAE can be induced by not only "myelin component peptide" but also some other CNS antigens, for example, CNS homogenate, and whole myelin protein.   9. Page 5, second paragraph.   The authors described that the disease onset of active