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PEER-REVIEW REPORT

Name of journal: World Journal of Psychiatry

Manuscript NO: 54597

Title: Pimavanserin for the treatment of psychosis in Alzheimer's disease: A literature review

Reviewer's code: 00784262

Position: Peer Reviewer

Academic degree: DSc, FRCP (C), MD

Professional title: Emeritus Professor, Professor

Reviewer's Country/Territory: Canada

Author's Country/Territory: United States

Manuscript submission date: 2020-02-13

Reviewer chosen by: Le Zhang

Reviewer accepted review: 2020-03-14 01:49

Reviewer performed review: 2020-03-14 02:14

Review time: 1 Hour

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [Y] Major revision [ ] Rejection
Re-review	[ ] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This is a well done, thorough review of the literature on a relatively new antipsychotic that has been used in the psychosis that sometimes accompanies Parkinson's Disease. The investigators reviewed its use in Alzheimer's Disease (AD). They found only one RCT and the article describes this one study in detail. Although this is a well done review, it is difficult to justify a review that reviews only one paper. The authors do include in the Discussion the use of the drug in Parkinson's Disease, which helps. To put some more meat into the review, I would suggest reviewing the use of antipsychotics in general in AD, including safety issues and then comparing these results with that of the one study of Pimavanserin.

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[ ] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Dear authors, I have some comments on your manuscript. As of the title of your manuscript: Do you think that the label "A systematic review" is appropriate if you review only one clinical trial (with two published papers based on this trial)? I disagree with your statement that Alzheimer´s dementia is the most prevalent form of dementia in the world. I my opinion, the most prevalent form of dementia is a mixed dementia (i.e. Alzheimer´s + vascular component). You should comment on this in the Abstract as well as Introduction. You should give more details about the MMSE values in the patients in the trial (e.g. MMSE in pimavanserin group, in placebo group etc.). Best regards The reviewer

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[ ] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The author attempted to clarify the effectiveness and safety of pimavanserin for psychotic patients with Alzheimer's disease with a systematic review. The methodology adopted in this review is standardized and properly structured. As a result, there has been only one study of placebo-controlled randomized trial found via comprehensive search. Because of limited number of trustworthy data, a meta analysis cannot be conducted in this research question. Thus, it should be concluded that the evidence of effectiveness of pimavanserin against AD psychosis is yet to be determined. The conclusion the author presented in this manuscript seems too optimistic.