Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Novelty of this manuscript	[ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No novelty
Creativity or innovation of this manuscript	[ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	[ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No scientific significance
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) [ ] Minor revision [Y] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous
	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The authors performed a well-designed, coherent and important review of the possible interaction between the pesticides and the phosphorylation of tau protein, with consequent interference in Alzheimer's disease. This is an innovative article as it analyzes the different classes of pesticides currently used.   Checklist: 1 Title. Does the title reflect the main subject/hypothesis of the manuscript? Yes, I think this is an appropriate title.   2 Abstract. Does the abstract summarize and reflect the work described in the manuscript? Yes, the abstract reflects the content of the manuscript.   3 Key Words. Do the key words reflect the focus of the manuscript? Yes, the words reflect the focus of the manuscript.   4 Background. Does the manuscript adequately describe the background, present status and significance of the study? Yes, I think this is a nice background. It explains the context and the relevance of the article.   I suggest a more detailed explanation of the effect that tau phosphorylation has on microtubule destabilization.   5 Methods. Does the manuscript describe methods (e.g., experiments, data analysis, surveys, and clinical trials, etc.) in adequate detail? -   6 Results. Are the research objectives achieved by the experiments used in this study? What are the

contributions that the study has made for research progress in this field? - 7 Discussion. Does the manuscript interpret the findings adequately and appropriately, highlighting the key points concisely, clearly and logically? Are the findings and their applicability/relevance to the literature stated in a clear and definite manner? Is the discussion accurate and does it discuss the paper's scientific significance and/or relevance to clinical practice sufficiently? The authors have done a great job in extracting and synthesizing the information of the studies, presented in the tables. However, I consider that this data should be analyzed in more detail in the manuscript to highlight the key points. The reduced number of studies for some classes of pesticides and the complexity of obtaining data for a specific class are mentioned as the limitations of the manuscript. It is true. However, I emphasize that one of the major limitations is the lack of large studies that assess the influence of pesticides on p-tau and correlate it directly with Alzheimer's. 8 Illustrations and tables. Are the figures, diagrams, and tables sufficient, good quality and appropriately illustrative, with labeling of figures using arrows, asterisks, etc, and are the legends adequate and accurately reflective of the images/illustrations shown? Figure 1 is well designed and relevant. Authors should consider making a table for each of the pesticide classes rather than subdividing into 1a, 1b and 2a-2c. I would recommend an extra table summarizing the studies referenced in the topic "Pesticides and their cognitive implications", it would add value to this manuscript. All the legends seem accurate. 9 Biostatistics. Does the manuscript meet the requirements of biostatistics? I think there was a miscalculation in the % of OCs, since the value gives me 57.14% and not the 62.5% mentioned. 10 Units. Does the manuscript meet the requirements of use of SI units? Yes 11 References. Does the manuscript appropriately cite the latest, important and authoritative references in the Introduction and Discussion sections? Does the author self-cite, omit, incorrectly cite and/or over-cite references? The references are adequate, the latest and most important

in this theme. There are some cases of omission, for example, in the 3rd line of the introduction when mentioning WHO data, etc. I recommend the authors review this aspect. 12 Quality of manuscript organization and presentation. Is the manuscript well, concisely and coherently organized and presented? Is the style, language and grammar accurate and appropriate? The manuscript is coherent and well organized. However, I would suggest splitting the topic "Pesticides and their impact on Tau protein" into several subtopics to help the reader (ex: an introduction to Tau and taupathies; and a topic for each of the pesticide classes). There are minor grammatical errors and language that could be more concise. There are very long sentences and constant repetition of words (ex: On the other hand) 13 Research methods and reporting. Authors should have prepared their manuscripts according to BPG's standards for manuscript type and the appropriate topically-relevant category, as follows: (1) CARE Checklist (2013) - Case report; (2) CONSORT 2010 Statement - Clinical Trials study, Prospective study, Randomized Controlled trial, Randomized Clinical trial; (3) PRISMA 2009 Checklist - Evidence-Based Medicine, Systematic review, Meta-Analysis; (4) STROBE Statement - Case Control study, Observational study, Retrospective Cohort study; and (5) The ARRIVE Guidelines - Basic study. For (6) Letters to the Editor, the author(s) should have prepared the manuscript according to the appropriate research methods and reporting. Letters to the Editor will be critically evaluated and only letters with new important original or complementary information should be considered for publication. A Letter to the Editor that only recapitulates information published in the article(s) and states that more studies are needed is not acceptable? - 14 Ethics statements. For all manuscripts involving human studies and/or animal experiments, author(s) must submit the related formal ethics documents that were reviewed and approved by their local ethical review committee. Did the manuscript meet the requirements of ethics? -

PEER-REVIEW REPORT

Name of journal: *World Journal of Clinical Cases*

Manuscript NO: 85906

Title: Effect of pesticides on phosphorylation of tau protein, and its influence on Alzheimer's disease

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 04245957

Position: Peer Reviewer

Academic degree: PharmD, PhD

Professional title: Academic Research, Emeritus Professor, Senior Researcher

Reviewer's Country/Territory: Spain

Author's Country/Territory: Mexico

Manuscript submission date: 2023-05-22

Reviewer chosen by: Geng-Long Liu

Reviewer accepted review: 2023-06-12 15:39

Reviewer performed review: 2023-06-22 17:24

Review time: 10 Days and 1 Hour

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Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous
	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

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