

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Clinical Cases*

**Manuscript NO:** 89281

**Title:** The correlative factors of poor prognosis and abnormal cellular immune function in patients with Alzheimer's disease

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 05153399

**Position:** Editorial Board

**Academic degree:** MSc, PhD

**Professional title:** Professor, Research Scientist

**Reviewer's Country/Territory:** Mexico

**Author's Country/Territory:** China

**Manuscript submission date:** 2023-10-26

**Reviewer chosen by:** Yu-Lu Chen

**Reviewer accepted review:** 2023-12-12 13:04

**Reviewer performed review:** 2023-12-13 19:16

**Review time:** 1 Day and 6 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

<b>Scientific significance of the conclusion in this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input type="checkbox"/> Anonymous <input checked="" type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## SPECIFIC COMMENTS TO AUTHORS

The presented article from Bai et al presents interesting findings associating lymphocyte subsets and MRI to prognosis in Alzheimers disease, nevertheles serveral aspects should be addressed before this manuscript could be considered for publication. 1.- Introduction is quite general regarding describing the findings in lymphocyte subsets from previous research works where this aspect has been analyzed in a deeper way. Some works should be included to enrich the introductory section. Fohner AE, Sitlani CM, Buzkova P, Doyle MF, Liu X, Bis JC, Fitzpatrick A, Heckbert SR, Huber SA, Kuller L, Longstreth WT, Feinstein MJ, Freiberg M, Olson NC, Seshadri S, Lopez O, Odden MC, Tracy RP, Psaty BM, Delaney JA, Floyd JS. Association of Peripheral Lymphocyte Subsets with Cognitive Decline and Dementia: The Cardiovascular Health Study. J Alzheimers Dis. 2022;88(1):7-15. doi: 10.3233/JAD-220091. PMID: 35527553; PMCID: PMC9277688. Speciale L, Calabrese E, Saresella M, Tinelli C, Mariani C, Sanvito L, Longhi R, Ferrante P. Lymphocyte subset patterns and cytokine production in Alzheimer's disease patients. Neurobiol Aging. 2007 Aug;28(8):1163-9. doi: 10.1016/j.neurobiolaging.2006.05.020. Epub 2006 Jun 30. PMID: 16814429. 2.- Method section should be greatly improved:

Describing detailed the process for T, B and NK staining, adquisition, and reagents used. Representative image of the flow cytometry analysis should be included. Regarding, this point, since this is a retrospective study i wonder why lymphocyte subsets was performed to dementia patients, did these patients presented another inflammatory, or immunological concomitant disease? In the other hand, analysis must be improved by comparing groups acording to main general characteristics such as Alzheimer vs other dementia and acording to the HIS or MMSE scale. 3.- Results. The results section also must be improved greatly. I strongly suggest: a) representing the results in graphs when possible besides the tables, b) Including representative images for MRI and Flow citometry counts. Clarify the units in wich Lymphocytes subsets is represente, and how calculus were made, ( especify proportion from full blood sample, from leucocytes, or lymphocytes?) Also verify or explain detailed the concordance between text and tables numbers since the text metions 55% but table its expressed as 0.55 T cell. Iclude the ROC for T cell count. 5.- Finally, adapt the discussion acording to the new finds this new analysis could provide to the manuscrip. Include references for discussing Th subsets such as Th 17 and T regulatory cells.