Journal of Pharmaceutical Research International

31(6): 1-3, 2019; Article no.JPRI.53014
ISSN: 2456-9119
(Past name: British Journal of Pharmaceutical Research, Past ISSN: 2231-2919, NLM ID: 101631759)

Ginkgo Biloba as a New Medication for Resisting Dementia: A New Proposal

Jyh-Woei Lin[1*]

[1]Department of Electrical Engineering, Southern Taiwan University of Science and Technology, No. 1, Nan-Tai Street, Yungkang District, Tainan City, Taiwan.

Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

Article Information

DOI: 10.9734/JPRI/2019/v31i630322
Editor(s):
(1) Dr. Vasudevan Mani, College of Pharmacy, Qassim University, Buraidah, Kingdom of Saudi Arabia.
Reviewers:
(1) Jorge Alfredo Herrera Pino, Florida International University, USA.
(2) Sandeep Kumar Agarwal, The Tamil Nadu Dr. M.G.R. Medical University, India.
(3) Tang Feng Ru, National University of Singapore, Singapore.
Complete Peer review History: http://www.sdiarticle4.com/review-history/53014

Short Research Article

Received 18 September 2019
Accepted 22 November 2019
Published 25 November 2019

ABSTRACT

Ginkgo biloba has been used in traditional medicine, by which memory in the brain could be improved. In this study, a dementia patient has taken Ginkgo biloba during the time period of a year as a case study. He has taken a pill with 665 mg for a year from 08 November 2018 to 08 November 2019 (Taiwan Standard Time, TST). Later, the brain waves were largely different. However, he could only know his family name, the long term memory (LTM) could showed only a small recovery. The treatment outcome has been limited. Focusing on synapses in the brain can be a good way of interpreting the results. For future research, some new medications containing Ginkgo biloba can be devised for keeping a normal converting long-term potentiation (LTP) for healthy persons and for resisting dementia. The new proposal contributes to this study. Ginkgo biloba should be necessary as a pharmaceutical ingredient.

Keywords: Ginkgo biloba; dementia; back propagation errors; Long Term Memory (LTM); synapse; Long-Term Potentiation (LTP).

1. INTRODUCTION

Ginkgo biloba, is known as ginkgo or gingko, which is the only living species in the division Ginkgophyta, all others, has been extinct [1]. It has various uses in traditional medicine and as a source of food [2,3]. Ginkgo biloba could improve memory in the brain [4]. In this case, a dementia

**Corresponding author: E-mail: pgjwl1966@gmail.com;*

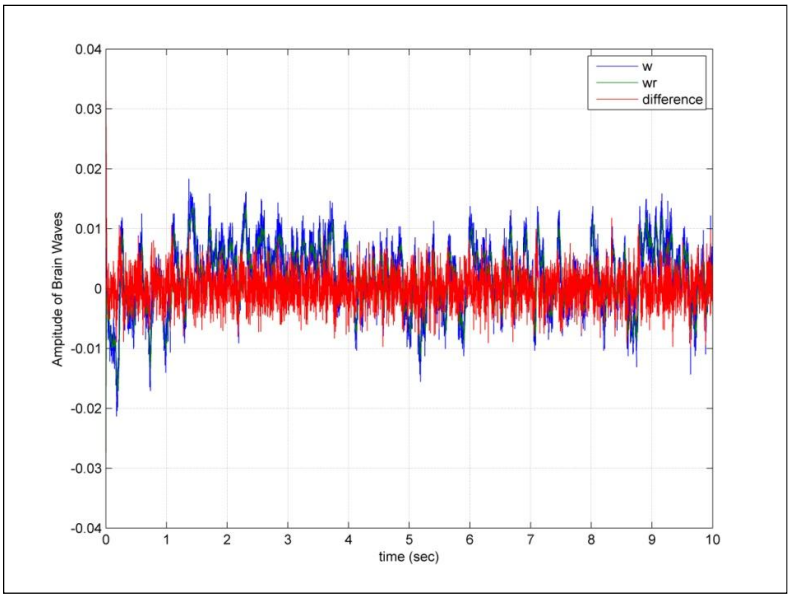

Fig. 1. This figure shows the brain waves

patient has taken Ginkgo biloba during the time period of a year. Each day, he took a pill with 665 mg. Finally, the effects were examined.

2. TEST AND RESULTS

The brain waves of a dementia patient were captured with 10 sec at 8:00 on 08, November, 2018 (Taiwan Standard Time, TST). As stated previously, he took Ginkgo biloba for a year. Then the brain waves of this dementia patient were again captured with 10 sec at 8:00 on 08, November, 2019 (TST). The results were shown in Fig. 1. He could only recall his family name. The treatment outcome showed limited, but better results.

The results showed Ginkgo biloba as a traditional medication that may treat dementia patients. Long term memory (LTM) [5] could be recovered. Focusing on synapses in the brain can be suggested [6]. In the future, some new medications containing Ginkgo biloba can be designed for keeping a normal converting long-term potentiation (LTP) for healthy persons and for resisting dementia. This new proposal should be constructive in this study. It means that Ginkgo biloba is necessary as a pharmaceutical ingredient [7].

The symbol ' w ' represents the original brain waves of a dementia patient. The legend symbol ' wr ' represents the brain waves of a dementia patient after taking Ginkgo biloba for one year. The red lines with symbol ' $Difference$ indicate the difference after treatment, which is large.

3. CONCLUSION

A dementia patient was treated with Ginkgo biloba. The patient has taken Ginkgo biloba with a pill of 665mg every day for a year from 08, November, 2018 to 08, November, 2019. The brain waves were largely different after treatment. Some new medications containing Ginkgo biloba can be designed for keeping a normal converting LTP for healthy persons and for resisting dementia.

CONSENT AND ETHICAL APPROVAL

As per university standard guideline participant consent and ethical approval has been collected and preserved by the author.

ACKNOWLEDGEMENT

The authors are grateful to the support of Department of Electrical Engineering, Southern Taiwan University of Science and Technology.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. Mustoe GE. Eocene Ginkgo leaf fossils from the Pacific Northwest, Canadian Journal of Botany. 2011;80 (10):1078-1087.
   DOI: 10.1139/b02-097
2. Montoro P, Beek TA. Chemical analysis and quality control of Ginkgo biloba leaves, extracts and phytopharmaceuticals. Journal of Chromatography A. 2009; 1216(11):2002-2032.
   DOI: 10.1016/j.chroma.2009.01.013
3. DeKosky ST, Williamson JD, Fitzpatrick AL, Kronmal RA, Ives DG, Saxton JA, Kuller LH. Ginkgo biloba for prevention of dementia: A randomized controlled trial. Jama. 2008;300(19):2253-2262.
4. Silberstein RB, Pipingas A, Song J, Camfield DA, Nathan PJ, Stough C. Examining brain-cognition effects of ginkgo biloba extract: Brain activation in the left temporal and left prefrontal cortex in an object working memory task. Evidence-based Complementary and Alternative Medicine; 2011.
5. Lynch MA. Long-term potentiation and memory. Physiol Rev. 2004;84(1):87-136.
   DOI: 10.1152/physrev.00014.2003
6. Lin JW. The concept of synapse against popular opinion. Journal of Pharmaceutical Research International. 2019;30(6):1-3.
   DOI: 10.9734/jpri/2019/v30i630284
7. Ude C, Schubert-Zsilavecz M, Wurglics M. Ginkgo biloba extracts: A review of the pharmacokinetics of the active ingredients. Clinical Pharmacokinetics. 2013;52(9):727-749.

Peer-review history:
The peer review history for this paper can be accessed here:
http://www.sdiarticle4.com/review-history/53014