DOI: 10.23977/medsc.2022.030303 ISSN 2616-1907 Vol. 3 Num. 3

Clinical Summary and Thinking of TCM Treatment of Mild Cognitive Impairment

Lin yu Wang^{1,a}, Tongsheng Su^{2,*}

¹Shaanxi University of Chinese Medicine, Xianyang, 712046 Shaanxi, China
²Department of Encephalopathy, Shaanxi Hospital of Traditional Chinese Medicine, Xi'an, 710003
Shaanxi, China
^a254494031@qq.com
*Corresponding Author

Keywords: Mild cognitive impairment, Traditional chinese medicine treatment, Review

Abstract: Mild cognitive impairment (MCI), also known as mild cognitive impairment, mainly refers to the presence of memory loss or even impairment accompanied (or not accompanied) by other mild cognitive impairment or even impairment, but the daily living functions of patients are basically not impaired, which is a clinical condition existing in normal aging and mild dementia[1]. The elderly with MCI are significantly more likely to develop into dementia than the normal elderly. Therefore, MCI can be considered as a high risk factor for alzheimer's disease. Under the guidance of "prevention before disease" and "gradual prevention of disease before disease" in Chinese medicine, if the purpose of prevention and treatment can be achieved in the MCI period, it will have great clinical significance and social value for the prevention of senile dementia[2]. Therefore, as a kind of "green therapy", TCM treatment has the characteristics of safety, health and small side effects, showing great advantages in the prevention and treatment of MCI. Therefore, the clinical research of TCM prevention and treatment of MCI is reviewed, in order to achieve the prevention and treatment of MCI patients and reduce their conversion rate to dementia. In order to protect the health of the elderly population, improve the quality of life of the elderly population and happiness in their later life, reduce the mental burden of patients, reduce the economic burden of society and family, but also to provide a reference for early clinical diagnosis, treatment and intervention of MCI to seek better and more appropriate treatment methods.

1. Introduction

The number of dementia people worldwide is expected to rise to 152 million by 2050°It can increase about once every 20 years, and as a developing country, dementia is growing three times as fast as that of developed countries°. The significant rise in the number of dementia not only seriously harms the physical health of the elderly, It also reduces the quality of life and happiness of the elderly, And brings a huge financial burden to society and families, It also brings a heavy mental burden to the patient himself, To this end, we must focus on the Alzheimer's group, Mild cognitive impairment (MCI) can also be known as mild cognitive impairment, Mainly refers to the presence

of memory loss or even impairment with (with or without) mild other cognitive impairment or even impairment, However, the patient's daily living function is basically unimpaired, It is a clinical state present in normal aging and mild dementia⁰. If the elderly have MCI, they are significantly more likely to gradually turn to dementia than in the ordinary normal elderly people, so MCI can be considered as a high risk factor for dementia in the elderly. Under the guidance of the thought of "prevention before disease" and "prevention before disease" in Chinese medicine, if the purpose of prevention and treatment can be achieved in the MCI period, it has great clinical significance and social value for the prevention of senile dementia⁰. For Chinese treatment as a "green therapy", with safety, health, small side effects show great advantages, so the prevention of MCI clinical research, in order to achieve the prevention of MCI patients, reduce the conversion to dementia, in order to protect the elderly health, the elderly to improve the quality of life and later life happiness, reduce the ideological burden, reduce social and family economic burden, but also for better clinical early diagnosis and treatment, intervention in MCI.

2. Traditional Chinese Medicine Etiology and Pathogenesis

There is no relevant record of mild cognitive impairment in ancient medical literature, but now according to its most important clinical manifestations: the decline of cognitive function, referring to ancient medical literature, mild cognitive impairment can be classified as "hui", "stupid" "disease", "dementia", "dementia and other categories". Lingshu Sea theory" said: "the brain is the pulp sea", "class evidence" has said: "the brain, the real memory is also." So think its disease related to the brain, consult the literature in recent years, can be found that the study of traditional Chinese medicine of MCI, more think MCI is this virtual standard evidence, although in the brain, but the question," say ":" kidney, the pulp is not full "and the qing dynasty wang qingren also pointed out that" wisdom "mind", "high years of memory, pulp sea gradually empty", so the disease is in the brain but closely related to the kidney, kidney can hide essence, marrow, essence, kidney essence deficiency, essence, mind empty, Standard real responsibility for blood stasis, phlegm turbidity, toxic evil and so on. And kidney deficiency is easy to form a vicious circle with phlegm turbidity, blood stasis, toxic evil and other standard cycle, and influence each other, aggravating the condition.

Xu Shijun et al⁰From the evolution of brain collateral function to explore the causes of MCI, they believe that older age is the basis of cognitive decline, hypertension, cardiovascular and cerebrovascular diseases, diabetes may be the basis of cognitive impairment, brain collateral obstruction and toxin loss may be the main pathogenesis of MCI, TCM treatment and MCI research; "Stone room secret record" said "phlegm is the most prosperous, the most dull", so Zhao Wanting, etc⁰Think MCI in the phlegm turbidity, phlegm turbidity is heavy; Li Wenhao et al⁰It is believed that, in addition to kidney deficiency, heart and spleen deficiency and temper deficiency can also lead to MCI, so on the basis of blood stasis and promote blood circulation to treat mild cognitive impairment; Wang Linying et al⁰Diagnosis and treat mild cognitive impairment by removing blood stasis and promoting blood circulation and activating meridians; Zhu Bin et al⁰Treat Yin and Yang for mild cognitive impairment; Feng Chunqing et al⁰Treat mild cognitive impairment by injection and acupuncture; He Yingchun et al⁰Discuss the treatment of MCI from the perspective of temper and essence; Lin Shuimiao et al⁰Think about the governance method of MCI from the level of "the heart, the officer of the monarch".

In short, for mild cognitive impairment, traditional Chinese medicine from "not hui", "fool", "dementia", "dementia", etc., with this virtual standard, respectively from phlegm, blood stasis, poison, embodies the principle of TCM treatment, also for different causes but lead to mild cognitive impairment with individualized treatment scheme provides a reliable theoretical basis. But

clinical dialectical classification for MCI is not unified, lack of systemic, integrity, and for the etiology of MCI is derived, lack of strict etiology research, etiology research in TCM diagnosis and treatment of four elements of "reason", "," principle, method, prescription, medicine "," reason "as" principle, method, prescription, medicine "the first of the whole disease, therefore, the dialectical classification of unification and" reason " shortage is bound to affect the treatment of MCI, so these are also the focus of clinical attention.

3. Traditional Chinese Medicine Treatment

Studies show: now the clinical improvement of mild cognitive dysfunction of cognitive function is the most beneficial and use the highest frequency of Chinese medicine respecti vely: fill deficiency medicine, clearing damp phlegm medicine and promote blood stasis, a nd Chinese medicine from natural animals and plants, than western medicine has safe, side effects, can take long-term advantage, so Chinese medicine in the treatment of the cogniti ve function of patients with mild cognitive impairment has great potential⁰. Such as Dai X iuzhen and so on⁰Diagnosis and treatment of 89 cases of mild cognitive impairment with western medicine (brain cell metabolic drug) + traditional Chinese medicine "Five Long an d less soup" (Dangshen, Xianlin spleen, Poria cocos, calamus, turtle beetle), Compared wit h 96 cases treated with western medicine alone, To investigate the clinical effect of traditi onal Chinese medicine on MCI, Results: The overall response rate of MCI patients was 7 9%, The total response rate of the western medicine group on improving cognitive functio n in MCI patients was 71%, Significant difference in improving cognitive performance in MCI (P <0.05), It can be concluded that the cognitive function of Wulong Still Shaodecoc tion and western medicine group is better than the western medicine group in the diagnosi s and treatment of patients with mild cognitive impairment; Ji Ping et al⁰For MCI, results: Blessed behavior scale and simple intelligence status scale, and the treatment scores were significantly better than the control group, and the comparison in the above two scales (P <0.05); Zhai Changhao, etc⁰The treatment of MCI by promoting blood circulation and res olving phlegm in M C I, The method is to randomly divide the patients into 30 patients (group: cholnanacin, chicken blood vine, pinellia, licorice, tangerine, calamus, Poria, Salvia miltiorrhiza, silkworm, angelica, cistanche, Yuanzhi) and pirazetam tablets combined with cytocholine capsule group 30 cases for control observation, Results: The total response rate of MCI was 86.7%, The overall response rate of MCI was 73.3%, Statistical significant difference between the two groups (P < 0.05), The group had better beneficial to cognitive function in MCI patients than the western medicine capsule group; some studies show a single Chinese medicine such as Ginkgo biloba⁰, Poria cocos and stone calamus have a ce rtain delay effect on the progression of MCI patients into dementia. Therefore, they all sh ow that traditional Chinese medicine has significant advantages in the diagnosis and treatm ent of the cognitive function of patients with mild cognitive impairment.

The author found by the literature, whether Chinese medicine and pure western medicine treatment MCI, is better than pure western medicine treatment MCI clinical effect, here shows the great potential of Chinese medicine MCI, but still lack under the guidance of TCM syndrome differentiation, dialectical typing of MCI patients, syndrome differentiation of a large sample of random controlled study, in order to provide more reliable clinical data for the diagnosis and treatment of mild cognitive impairment and scientific basis.

4. Acupuncture Treatment

4.1 Needle Prick Method

"Difficult classics": "supervise the pulse, into belong to the brain". Yu Xiaogang et al⁰Through the main acupuncture supervision pulse acupoints such as: Fengfeng, Baihui, shrine, etc., A total of 25 patients with mild cognitive impairment were treated, After the needle injection, baihui and ting point are connected to the electroacupuncture treatment instrument through continuous wave, The duration of needle retention period is 20-25 minutes, A total of 3 courses of treatment, One course takes 2 months, Five times per week, Comparison of 26 patients in the same drug group (nimodipine), Results: The total response rate of the acupuncture group in improving cognitive function in MCI was 80%, The overall response rate of the comparison group in improving cognitive function in MCI patients was 50%, Total difference in improving cognitive function (P <0.05), The effect of MCI treatment in acupuncture group was better than that in western medicine group; Li Guohui et a⁰Using acupuncture (acupoint selection: Benshen, Sihui, Baihui, Fengchi) combined with cognitive rehabilitation training to treat MCI. Results: The MMSE score, MMSE score and M M S E score in the acupuncture group were significantly improved compared with the western medicine group (P <0.05); Guo Wenhai et al⁰Using the original and complex points, With the use of "original luo tong needle method" (the original point: Shenmu, Taibai, Taixi, Luo point: Feiyang, Fulong, with Fengchi, Guanzhong, Baihui, Quchi, Guan Yuan, this god) treatment of MCI, After the needle was irritated, The needle lasts 40 minutes, During needle 3 times, The needle running interval is 10 min, Treatment occurs once a day, One day rest after 6 consecutive treatment, The total duration of treatment was 28 days, The control group was oral donepezil hydrochloride, Result: After the diagnosis and treatment, The memory-related scores such as memory quotient, free image recall and meaningless graph rerecognition in the two groups were significantly improved, Memory-related scores varied significantly before and after treatment (P < 0.05), In addition, the two groups of event-related potential P300 was improved after diagnosis and treatment (P < 0.05), Meanwhile, the above data showed no significant difference between the acupuncture group and the western medicine group (P> 0.05), Although there was no statistical difference in the correlation data outcome score and compared with the donepezil hydrochloride group, However, the advantages of healthy and small toxic and side effects cannot be replaced by the donepezil hydrochloride group, From this perspective, the observation of protransacupuncture is more beneficial to improve cognitive function in patients with mild cognitive impairment.

Through sorting, consult the literature, the author found that acupuncture as a "green therapy" in the treatment of MCI has unique advantages, but because of acupuncture method, how to choose points can better treat MCI still lack of large sample, high quality research, so its systematic, so can develop system, standard MCI acupuncture intervention program is crucial to clinical significance, the future we should focus on here.

4.2 Moxibustion Method

Some studies believe tha Moxibustion mainly prevents and controlling MCI by tonifying kidney and strengthening Yang, filling the essence and awakening the brain, and can improve the damage of cognitive function of MCI patients by regulating the related protease activity and neurotrophic factors. Jia Xinyan et al Pass, Baihui, shrine and other acupoints through the purpose of puzzle for moxibustion treatment, after treatment, the patient's cognitive function is significantly improved, operation method: with sterile cotton swab dipped a small amount of oil in the skin of the disinfection, placed on the point, lit about 2 / 3 or the needle tip feel hot with tweezers, easy column

and moxibustion, moxibustion to 5 strong, a total of 2 courses of treatment, each course for 4 weeks, 6 times / week, treatment once a day, each treatment rest between 2 days.

"Huangdi Neijing" said "acupuncture is not, moxibustion is appropriate", so for MCI patients who drink traditional Chinese medicine, afraid of acupuncture, we can consider the plan of acupuncture treatment, which provides a new idea for the early intervention of MCI of traditional Chinese medicine.

5. Other Therapies

There are studies that show that music therapy has a better clinical effect on early intervention in MCI, and Song Yanli et al⁰Under the guidance of the five elements theory, using five-tone (palace, horn, Shang, sign, feather) therapy to treat MCI patients has also achieved beneficial effect; electroacupuncture therapy⁰It may be applied on MCI patients by increasing the glucose metabolism in the hippocampus and improving neuroinflammation to protect the nerve, so the cognitive function of MCI patients is also beneficial. Xu Guangzheng pressure pill method (subcortex, temporal, heart, kidney, liver, forehead, spleen) and certain ear massage techniques on daily living ability and cognitive ability of MCI patients;

Among the other treatment methods, music and ear acupoints are non-invasive therapies, and patients receive more, which deserves clinical attention in the treatment of MCI patients.

6. Conclusion

Integrated literature is not difficult to find that the traditional Chinese medicine in the treatment of MCI really has significant clinical effect, especially in western medicine on the treatment of MCI and no unity, special clinical treatment, and western medicine side effects, single effect, expensive, so traditional Chinese medicine to delay MCI to dementia, improve MCI patients with cognitive function, improve the quality of life of MCI patients is particularly important. But it can be seen that TCM treatment in the treatment of MCI, the overall treatment mechanism is not clear, for MCI name and differentiation standard is not established, systemic and holistic, and lack of multiple center, high quality, large sample of clinical randomized controlled trials, and currently only MMSE, Mo CA, ETC scale evaluation effect, subjective, lack unified, objective efficacy evaluation criteria, so we still need large samples, multicenter, high quality clinical research to enrich, develop and improve the treatment mechanism of MCI and provide objective and powerful clinical evidence for Chinese medicine treatment MCI.

Acknowledgement

Key RESEARCH and development plan of Shaanxi Province Project: Technology research and development and demonstration of smart Medical care in Alzheimer's disease management (Project No.: 2020ZDLSF04-03).

References

- [1] Dorris J L, Neely S, Terhorst L, et al. Effects of music participation for mild cognitive impairment and dementia: A systematic review and meta-analysis [J]. J Am Geriatr Soc, 2021, 69(9): 2659-2667.
- [2] Ferri C P, Prince M, Brayne C, et al.Global prevalence of dementia: a Delphi consensus study[J]. The Lancet, 2005, 366(9503): 2112-2117.
- [3] China Expert Consensus Expert Group on Preventing Cognitive Disorders. Chinese expert consensus on preventing cognitive dysfunction [J]. Chinese Journal of Internal Medicine, 2006 (02): 171-173.
- [4] Wang Jiankai, Yang Xiyan. Progress in TCM intervention on mild cognitive impairment in the elderly [J]. Hebei Traditional Chinese Medicine, 2014,36 (04): 628-630.

- [5] Li Hao, Yao Ming Jiang.On the relationship between TCM "deficiency", "stasis", "turbidity" and "poison" and the onset of mild cognitive impairment [J]. Chinese Journal of Traditional Chinese Medicine Information, 2006 (11): 4-5.
- [6] Xu Shijun, Zhao Yijun, Zhang Wensheng, et al. From the evolution of TCM cerebral collateral function to talk about mild cognitive impairment pathogenesis [J]. Journal of Traditional Chinese Medicine, 2011,52 (19): 1627-1629.
- [7] Zhao Wanting, Wang Li, Yu Yinghua. Based on the theory of "sputum turbidity" [J]. Practical Journal of Traditional Chinese Medicine, 2021,1-3.
- [8] Li Wenhao, Wu Zhifan, Wang Kai, et al. Clinical efficacy of combined spleen decoction in the treatment of mild cognitive impairment after cerebral infarction [J]. Chinese Journal of Experimental Formulology, 2021,1-7.
- [9] Wang Linying, Xiao Hongbo, Zhang Qingping and so on. The clinical effect of moxibustion and acupuncture on mild cognitive impairment after stroke [J]. Journal of Anhui University of Traditional Chinese Medicine, 2021,40 (05): 40-44.
- [10] Zhu Bin, Wang Ce, Xu Qingqing. Clinical study on mild cognitive impairment combined with cognitive rehabilitation in Parkinson's disease [J]. New Traditional Chinese Medicine, 2021,53 (17): 38-41.
- [11] Feng Chunqing, Chu Qin, Shi Jiangwei, etc. Effect of yiqi and blood regulation in the treatment of mild cognitive impairment [J]. Jilin Traditional Chinese Medicine, 2009,29 (10): 871-872.
- [12] He Yingchun. Theoretical study of spleen-filling method in the treatment of mild cognitive impairment [J]. Journal of Shaanxi College of Traditional Chinese Medicine [J], 2010,33 (03): 6-7.
- [13] Wang Jian, Lin Shuimiao. Thinking from the "Heart" theory [J]. Journal of Shanghai University of Traditional Chinese Medicine, 2013,27 (01): 24-25.
- [14] Yang Chun, Li Qiang, Li Jinbo. Analysis of TCM clinical administration rule for treating mild cognitive impairment [J]. Inner Mongolia Traditional Chinese Medicine, 2018,37 (02): 87-88.
- [15] Dai Xiuzhen, Wang Yunqin, Sun Xuanxiang. Observation on the efficacy of "five dragon and little soup" in the treatment of mild cognitive impairment [J]. Chinese General Medicine, 2008 (10): 1057-1058.
- [16] Ji Ping. Atreatment on mild cognitive impairment in 200 cases [J]. Chinese and foreign Medical treatment, 2012,31 (05): 108.
- [17] Zhai Changhao. Analysis of the effect for patients with mild cognitive impairment after stroke [J]. Contemporary medicine theory cluster, 2016,14 (22): 96-97.
- [18] Zeng Pepe, Li Hongdan, Liu Tai.Meta-analysis of oral ginkgo biloba extract preparations for mild cognitive dysfunction [J].Medical Guide, 2017,36 (07): 761-766.
- [19] Yu Xiaogang, Sun Shanling, Cheng Yanhong. Clinical observation of mild cognitive dysfunction after ischemic stroke in the treatment of acupuncture [J]. Journal of Integrated Traditional Chinese and Western Medicine for cardiovascular and cerebrovascular Diseases, 2007 (12): 1171-1173.
- [20] Li Guohui, Lai Yingying. Clinical observation of acupuncture combined with cognitive rehabilitation training for the treatment of mild cognitive dysfunction [J]. Journal of Shandong University of Traditional Chinese Medicine, 2009,33 (02): 124-125.
- [21] Guo Wenhai, Zhu Pengyu, Wei Yan, et al. Clinical study on the effect of protong transacupuncture on memory in patients with mild cognitive dysfunction [J]. Clinical Journal of Acupuncture, 2011,27 (11): 4-6.
- [22] Liu Yilei, Xie Zongliang. Clinical effect of acupuncture method on mild cognitive impairment after stroke [J]. Clinical Journal of Traditional Chinese Medicine, 2017,29 (04): 495-497.
- [23] Luo Jianchang, Chen Aiwu, Lang Boxu. Clinical study of mild cognitive impairment after stroke [J]. Shanghai Acupuncture Journal, 2019,38 (02): 169-173.
- [24] Song Yanli, and Liu Wei.Practice study of the elderly with mild cognitive impairment [J].Nursing Research, 2017,31 (34): 4376-4379.
- [25] Leung, A.W., Lam, L.C., Kwan, A.K., et al. Electroacupuncture for older adults with mild cognitive impairment: study protocol for a randomized controlled trial [J]. Trials, 2015 16(1).