New research demonstrates that acupuncture is effective for the treatment of vascular dementia. Published in the *Chinese Journal of Gerontology*, clinical and laboratory research finds acupuncture significantly effective in improving cognition and memory. Laboratory results and objective measurements confirm these findings; acupuncture successfully increases glucose metabolism in the brain areas related to cognition and memory. In addition, cerebral blood flow improves with acupuncture. As a result, the researchers note that acupuncture is effective in alleviating vascular dementia.

The research team investigated Professor Jingyuan Han’s approach to clinical care for patients with vascular dementia. His treatment protocols employ three main Traditional Chinese Medicine (TCM) protocols for the application of acupuncture: tonify qi, regulate blood, essence nurturing. The approach is based in the three jiao vaporization protocol. This technique focuses on unblocking obstructions as the primary mode of care followed by tonification as the secondary mode of care. From a biomedical perspective, this translates into an approach to care that primarily focuses on enhancing the micro-circulation of blood and nutrients to affected regions of the brain. Secondarily, stimulation of nutrient production for strengthening purposes is then accelerated with acupuncture techniques.

Prof. Han commented on the research. He notes that the pathogenesis of vascular dementia within the TCM system involves three main components: kidney deficiency, phlegm stasis and turbid toxins. He adds that many internal organs, both zang and fu, are involved in all three jiaos. As a result, his approach focuses on stimulating invigorating and restorative functions throughout the body. Prof. Han uses a variety of TCM acupuncture points based on classic differential diagnostics including Danzhong (CV17), Zhongwan (CV12), Qihai (CV6), Zusanli (ST36), Xuehai (SP10), and Waiguan (SJ5).

Clinical research on human subjects demonstrates that this approach to care is effective for the restoration of cognition and memory for vascular dementia patients. Laboratory results confirm that this approach improves the ability to learn, re-learn and memorize. Objective measurements reveal that acupuncture protects against oxidative damage by improving SOD and GSH activity in the brain. Superoxide dismutase (SOD) and total glutathione (GSH) are antioxidant enzymes. Acupuncture also successfully downregulated inducible nitric oxide.
synthase (iNOS), a key enzyme for generating nitric oxide (NO). Additionally, acupuncture improved cerebral blood flow and cerebral glucose metabolism.

This approach to acupuncture care was shown to increase the expression of GLUT1, glucose transporter 1, in cases of vascular dementia. GLUT1 is involved in cellular respiration, regulation of glucose levels and vitamin C uptake. Upregulation of GLUT1 promotes intercellular transport and benefits brain glucose metabolism. The laboratory results indicate that upregulation of GLUT1 by acupuncture alleviates ischemia and anoxia related cognitive impairment.

Reference: