

GS01-8 **Potential restoration of memory impairment in dementia by the Kampo formulation, nobiletin-rich chinpi-containing yokukansankachinpihange**

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The fundamental treatment of Alzheimer's disease (AD) poses considerable difficulties. We have originally reported that the citrus flavonoid, nobiletin, can improve memory impairment in APP transgenic mice. Chinpi is a crude drug containing a small amount of nobiletin that is used as a stomachic as well as an asthma treatment. Yet, recently we have successfully found nobiletin-rich chinpi, designated as Nchinpi, the extract of which can more potently facilitate CRE-mediated transcription associated with long-term memory formation in a PKA- and ERK-dependent manner than nobiletin in hippocampal neurons in culture. Furthermore, continuous gavage of the Nchinpi extract effectively restored MK-801-induced memory impairment in mice as well. Additionally, our recent pilot clinical study suggested a potential beneficial effect, after one-year administration of decocted Nchinpi, on memory dysfunction in patients with AD. Thus, we further tried to examine whether Nchinpi-containing yokukansankachinpihange (YKSNCH) could prevent memory impairment in animals using contextual fear conditioning, although both yokukansan and yokukansankachinpihange (YKSCH) have been reported to be of benefit to BPSD. Here, we provide evidence that YKSNCH more effectively prevents MK-801-impaired memory than YKSCH in mice.