AGING WITH ALZHEIMERS: DEMENTIA VILLAGE SINGAPORE

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Rapid development and urbanization in the past century has led to a wave of ‘silver tsunami’ sweeping across the developed world, with the number of dementia patients expected to double to 75.6 million by 2030. In place of traditional nursing homes, the Netherlands has pioneered the first dementia village in the world, the De Hogeweyk, a 1.5-hectre self contained model village in Amsterdam. We imagine how a similar–styled village can be built in Singapore and its feasibility. The principle of the dementia village is to create a safe environment for dementia residents to live in. We want to preserve their freedom, accord them dignity and respect maintain a good quality of life.

Land scarce Singapore would be the perfect setting for a block of condominium-style apartments, with each flat personalized according to the senior’s liking, situated within a gated premise with security cameras for patient’s safety. Residents will be given the independence to walk around.

The village will be helmed by a myriad of healthcare staff who will “live” in the same community. They will patrol the village in street clothes and look after the villagers in a discreet manner. The village will be self-equipped with its own facilities such as grocery store, gym, hair salon, restaurant and a GP clinic. There will also be a community town hall, where villagers can mingle and have classes together. Villagers will manage their own households with the help of staff if they require. Families are strongly encouraged to visit.

A dementia village is a novel concept, which would result in a more active, comprehensive and human way for dementia patients to live, without being handicapped by their condition, hence successful aging with Alzhiemers.

ASTRAGALUS INCREASE TG2576 MICE TO SCAVENGE TOXIC ADDLs AND RESTORE HOMEOSTASIS OF SYNAPSE PREVENTING DEVELOPMENT OF ALZHEIMER’S DISEASE

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Alzheimer’s disease (AD) is characterized with pathological changes: β-amyloid plaques, phosphorylated tau tangles and synaptic loss. The effective therapeutic is unavailable to prevent AD development. Based on the Chinese Medicine about the principle of “The full of Inborn Qi makes the Jing and Shen filled the loss of Inborn Qi results into Jing and Shen shorted”, in this study, we used Astragalus for Inborn Qi to clean the oligomers of Aβ (ADDLs) and protect synaptic function to prevent AD development at an early stage. The transgenic Tg2576 AD mice at 3 months old were treated with 100mg/Kg extracts of Astragalus each day for 3 months, the multiple methods, including water maze test, immunocytochemistry were used to examine memory change of Tg2576 and the relevant mechanism. The results showed Astragalus can increase space, memory function of Tg2576 mice to decrease the time for finding safe platform to 47% (p<0.01) in the brains of Tg2576 mice to rescue the homeostasis of synapse, compared with these levels in brains of Tg2576 mice without treatment, respectively and Astragalus can increase immunological function and neuronal autophage to clean ADDLs, and increase insulin signal and protect various ATPases to restore synaptic homeostasis, preventing AD development. In addition to AD, these results showed Astragalus could also be used to prevent neurodegenerative diseases such as PD, FTD and DLB diseases, clean misfolding proteins and protect synaptic function at an early stage.