Task Force for Evidence Reports / Clinical Practice Guideline Committee for EBM, the Japan Society for Oriental Medicine

#### 5. Psychiatric/Behavioral Disorders

#### Reference

Iwasaki K, Satoh-Nakagawa T, Maruyama M, et al. A randomized, observer-blind, controlled trial of the traditional Chinese medicine yi-gan san for improvement of behavioural and psychological symptoms and activities of daily living in dementia patients. *Journal of Clinical Psychiatry* 2005; 66: 248-52. CENTRAL ID: CN-00502716, Pubmed ID: 15705012

### 1. Objectives

To evaluate the efficacy and safety of yokukansan (抑肝散) for treating behavioral disorders and improving activities of daily living in dementia patients.

### 2. Design

Randomized controlled trial (RCT).

## 3. Setting

Three hospitals (long-term care facilities), Japan.

## 4. Participants

A total of 60 patients with dementia due to Alzheimer's disease, cerebrovascular disorder, or Lewy body disease, having a Mini-Mental State Examination (MMSE) score of <24 and a neuropsychiatric inventory (NPI) score of >6; of these, 52 patients were included for analysis.

### 5. Intervention

Arm 1: oral administration of 7.5 g/day of TSUMURA Yokukansan (抑肝散) Extract Granules in 3 divided doses before meals for 4 weeks (n=27).

Arm 2: untreated control group (n=25).

## 6. Main outcome measures

MMSE score, Barthel Index, and NPI score.

### 7. Main results

No changes were found in MMSE score in either group. Significant improvements (compared with baseline) were observed in Barthel Index, from  $56.4\pm34.2$  to  $62.9\pm35.2$ , and NPI score, from  $37.9\pm16.1$  to  $19.5\pm15.6$ , in arm 1. In NPI subscales for hallucination, anxiety/excitement, etc., significant improvements over baseline were noted in arm 1. Additional treatment with tiapride hydrochloride, a dopamine  $D_1$  selective neuroleptic, was required in 11 patients in arm 2 but in none in arm 1.

### 8. Conclusions

Yokukansan is effective for improvement of behavioral disorders and activities of daily living in dementia patients.

# 9. From Kampo medicine perspective

None.

### 10. Safety assessment in the article

Dizziness and impaired postural sway were reported in 6 patients (54.5%) treated with tiapride hydrochloride. Two patients (7.4%) who continued yokukansan after the end of the observation period became oversedated but recovered with a reduced dose.

# 11. Abstractor's comments

This study, which investigated the efficacy of yokukansan for cognitive function and activities of daily living in elderly dementia patients in an RCT, provides high-quality evidence. However, the same nurses who rated MMSE and NPI scores, and Barthel Index may also have administered yokukansan, suggesting the possibility of a lack of blinding, which may have affected evaluations. In future, the effects of yokukansan in dementia patients are expected to be studied over a longer term.

### 12. Abstractor and date

Goto H, 15 June 2007, 1 April 2008, 1 June 2010.