Behavioral and Psychological Symptoms of Dementia

Akarachaid Pinidbunjerdkool MD*,
Sansanee Saengwanitch MD*, Pasiri Sithinamsuwan MD*

** Division of Neurology, Department of Medicine, Phramongkutklao Hospital and College of Medicine, Bangkok, Thailand*

Objective: *To identify the frequency of behavioral and psychological symptoms of dementia (BPSD) and to explore the different characteristics between subgroup and severity of dementia.*

Material and Method: *Sixty-seven patients with Alzheimer's disease, vascular dementia, and mixed dementia were recruited to our cross-sectional study. Neuropsychiatric batteries including the Mini Mental Status Examination-Thai 2002, Thai Geriatric Depression Scale, 23 items from Alzheimer's Disease co-operative Study activities of daily living inventory, Behavioral pathology in Alzheimer's disease rating scale, and Pittsburg Sleep Quality Index were tested.*

Results: *The most common behavioral and psychological symptoms of dementia (BPSD) were sleep problems (100%), paranoid/delusion (59.7%), diurnal disturbance (49.2%) and aggressiveness (46.3%). Hallucination and affective problems were more severe in AD than in VaD/mixed dementia. Sleep problems were identified more severe in mild dementia than moderate-to-severe dementia. With longer duration of having dementia, except for affective problem, there was no difference in behavioral and psychological symptoms observed compared to the shorter dementia group.*

Conclusion: *Behavioral and psychological symptoms were very common in Alzheimer disease, vascular dementia, and mixed dementia. Since these symptoms cause cognitive and functional decline, institutionalization, caregiver distress and increase direct costs of care, the problem must be identified and addressed.*

Keywords: *BPSD, Behavior, Cognitive, Mood, Sleep, Dementia*

J Med Assoc Thai 2014; 97 (Suppl. 2): S168-S174
Full text. e-Journal: *http://www.jmatonline.com*

Dementia is a common and growing public health problem. The most common causes of dementia are Alzheimer's disease (AD), mixed dementia and vascular dementia (VaD)[1]. Both Alzheimer's disease and mixed dementia are progressive illnesses that lead to functional complications, debilitation, and eventually death[2]. One of the serious and common complications in dementia is the occurrence of mental and behavioral disturbances[3]. Disruptive behaviors such as agitation, verbal and physical aggression, and wandering predict cognitive and functional decline, and institutionalization[4]. Presence of hallucinations is also associated with institutionalization and mortality[5]. Additionally, neuropsychiatric symptoms may result in increased caregiver distress[6], a higher rate of nursing home placement[7], and more rapid disease progression[2,8]. Furthermore, behavioral symptoms in patients with AD significantly increase direct costs of health care[9].

The authors here aimed to evaluate the frequency and severity of neuropsychiatric symptoms in patients diagnosed with AD, VaD, and mixed dementia. The goals of the present study were: 1) to explore the relationship between type of dementia (AD, VaD, and mixed dementia) and specific patterns of neuropsychiatric symptoms, and 2) to test hypothesis that neuropsychiatric symptoms are associated with severity and duration of dementia.

Correspondence to:
Sithinamsuwan P, Division of Neurology, Department of Medicine, Phramongkutklao Hospital and College of Medicine, Bangkok 10400, Thailand
Phone: 0-2354-7600 ext. 93027, Fax: 0-2354-7637
E-mail: pasiripmk@gmail.com

Material and Method

Study design

A single center, cross-sectional study.

Participants

Participants were recruited from outpatient Neurology clinic of Phramongkutklao Hospital and College of Medicine, Thailand between February 2010 and August 2010. Inclusion Criteria were age >60 years, diagnosed with Alzheimer's disease, vascular dementia by DSM IV criteria or mixed dementia by fulfilling the clinical criteria for possible AD plus clinical or brain imaging evidence of relevant CVD. The authors

excluded patients with other degenerative dementias e.g. dementia with Lewy body, multisystem atrophy, treatable dementia and active medical problems. Each patient and a caregiver were informed and signed the consent to participate in the present study after the protocol study had been fully explained. Ethical approval was obtained from our centers' institutional review boards.

Data collection and batteries

Data included gender, age, education, underlying disease, recent medication, and onset of dementia. The study's cognitive neuropsychiatric test batteries comprised the Mini Mental Status Examination (MMSE)[10] (Thai version 2002), Thai Geriatric Depression Scale (TGDS)[11], 23 items from Alzheimer's Disease Cooperative Study activities of daily living inventory (ACDS/ADL) containing 23 items covering physical and mental functioning and independence in self-care. The scores range from 0 to 78, with lower values indicating greater disability[12]. Behavioral pathology in Alzheimer's disease rating scale (BEHAVE-AD) is a 25-item scale covering the following domain: Paranoid/delusion, hallucinations, activity disturbances, aggressiveness, diurnal rhythm disturbances, affective disturbance, and anxieties and phobias in first part. The second part is the global rating. More BEHAVE-AD scores indicates more behavioral abnormalities[13]. Pittsburg Sleep Quality Index (PSQI) measures seven areas: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction over the last month. The PSQI self-rates each of these seven areas of sleep. Scoring of answers is based on a 0 to 3 scale, where by score '3' reflects the negative extreme on the scale. A global sum of "5" or greater indicates a "poor" sleeper[14].

Statistical analysis

Analyses compared behavioral and psychiatric symptoms in AD to those with VaD and mixed dementia. The authors used unpaired t-test and Chi-square test in which $p<0.05$ indicated statistical significant. Statistic package use was SPSS version 11.5.

Results

Sixty-seven patients were surveyed. Thirty-eight patients (56.7%) were males and 29 (43.3%) were females. Mean onset of dementia was 3.43 years. The age ranged from 62 to 91 years with a mean age of 77.6. Regarding educational level, individuals graduated at primary school accounted for 19 patients (28.4%) and above this level were 45 (70.3%). Alzheimer's disease (AD), vascular dementia (VaD), and mixed dementia were diagnosed in 34 cases (50.8%), 10 (14.9%), and 23 (34.3%), respectively. Most frequent co-morbidity was hypertension (51 patients; 76.1%). Others were cerebrovascular disease, diabetes, Parkinson's disease, and coronary artery disease (Table 1). Most of patients received pharmacological treatments such as acetylcholine esterase inhibitor (87%), NMDA receptor antagonist (31%), antidepressant (24%), anxiolytic drugs (13%) and anticonvulsant (10%). All demographic characteristics were presented in Table 1.

Mean (SD) MMSE was 17.5 (5.5) (range 2-28). Ten patients could not perform MMSE due to severe cognitive and behavioral problems. The details of neuropsychological assessment were shown in Table 2.

Average TGDS (SD) evaluated in 63 dementia individuals was 9.2 (5.3) (range 1-30), Table 2. Using criteria of depression from Train the Brain Forum Committee [11], depression was diagnosed in 12 patients (19.1%). Patients were classified in mild (11%), moderate (6.4%), and severe (1.6%) depression, Table 3.

Behavior problems scored by BEHAVE-AD in each domains and summation of the score were noted in Table 2. Fifty-eight patients (86.6%) were indicated of having behavioral abnormalities from this battery. Most common behavioral problem was paranoid/delusion (40 patients; 59.7%). Other following commonest problems were diurnal disturbance (33; 49.3%) and aggressiveness (31; 46.3%). The detail of each behavioral problem was given in Table 4.

All patients demonstrated at least one component of a sleep problem on PSQI but the significant sleep disturbance defined by global PSQI $\geq$5 were observed in 39 patients (60.9%) (Table 5). Mean global PSQI was 6.4 (ranged 1-17, Table 2). The most common sleep related problem was about sleep disturbance (100%), followed by sleep quality (73%), and sleep latency (61%), Table 5.

Table 6 compared AD with VaD/mixed dementia. There was no significant difference of age, duration of dementia, depression (TGDS), activity of daily living (ADCS/ADL), and sleep quality (PSQI) between both major demented groups. The significant different parameters were about some of BEHAVE-AD sub-domains. Severe hallucination and affective problems were identified more in AD than in VaD/mixed

Table 1. Demographic characteristic of 67 patients

Variables	Number (%)
Gender	
Male	38 (56.7)
Female	29 (43.3)
Age (years), mean ± SD (range)	77.6±6.2 (62-91)
Duration of dementia (year), mean ± SD (range)	3.4±2.6 (0.2-10)
Level of education	
Primary school	19 (28.4)
Secondary school	4 (6.0)
High school & Vocational Certificate	21 (31.4)
Bachelor at least	20 (29.9)
Diagnosis	
Alzheimer's disease	34 (50.8)
Vascular dementia	10 (14.9)
Mixed dementia	23 (34.3)
Underlying disease	
Cerebrovascular disease	33 (49.3)
Hypertension	51 (76.1)
Diabetes	19 (28.4)
Coronary artery disease	6 (9.0)
Parkinson's disease	11 (16.4)
Recent medication	
Donapezil	27 (40.3)
Rivastigmine	17 (25.4)
Galantamine	14 (20.9)
Memantine	21 (31.3)
Selective serotonin reuptake inhibitor	16 (23.9)
Anxiolytic drug	9 (13.4)
Anticonvulsant	7 (10.5)

dementia. AD tended to have significantly higher MMSE and more aggressiveness than those with VaD/mixed dementia.

The authors also compared the cognitive and neuropsychological parameters between mild dementia (MMSE ≥20) and moderate to severe dementia (MMSE <20). The result showed that mild dementia had significantly better activities of daily living than the other groups, but surprisingly, mild dementia appeared to be significantly worse in some sleep parameters than patients with moderate-to-severe dementia (Table 6). Additionally, mild dementia seemed to have more anxiety/phobia than the other group.

Compared between early dementia (duration ≤2 years) and the group of duration over than 2 years, it was found that the early group had a significantly lower affective problem than the other group, (0.2 versus 0.8; $p = 0.01$), Table 6. The early group tended to have a better activity of daily living, less hallucination, activity disturbance, anxiety/phobia, and better in overall behavior assessment, Table 6.

Discussion

The present study confirmed that Behavioral and psychological symptoms of dementia (BPSD) was common in individuals with Alzheimer's disease (AD), vascular dementia (VaD), and mixed dementia. Sleep-related problems had been found in all our dementia individuals and 60.9% were documented to have significant sleep problems. Several studies have described a variety and frequency of behavioral disturbances and sleep problems in dementia. Lyketsos CG et al[15] reported 30.1% sleep problem in dementia patients, Peters KR et al documented 25.7% these

Table 2. Cognitive and neuropsychological evaluation

	Mean ± SD	Range
MMSE (0-30), n = 57	17.5±5.5	2-28
TGDS (0-30), n = 63	9.2±5.3	1-30
ADCS/ADL (0-78)	40.3±18.6	0-73
BEHAVE-AD		
Paranoid/delusion	2.5±3.9	0-17
Hallucination	1.2±2.0	0-7
Activity disturbance	1.0±1.8	0-8
Aggressiveness	1.9±2.6	0-9
Diurnal disturbance	0.9±1.0	0-3
Affective	0.5±1.1	0-6
Anxiety/phobia	1.2±1.8	0-6
Sum_BEHAVE_part 1	9.2±11.2	0-51
Sum_BEHAVE_part 2	0.5±0.7	0-2
PSQI		
Sleep quality	0.8±0.6	0-2
Sleep latency	1.0±1.0	0-3
Sleep duration	0.7±0.9	0-3
Sleep efficiency	0.8±1.2	0-3
Sleep disturbance	1.5±0.6	1-3
Sleeping treatment	0.9±1.3	0-3
Daytime dysfunction	0.7±0.9	0-3
Global PSQI	6.4±3.8	1-17

MMSE = Mini Mental Status Examination; TGDS = Thai Geriatric Depression Scale; ACDS/ADL = Alzheimer's Disease Cooperative Study activities of daily living inventory; BEHAVE-AD = Behavioral pathology in Alzheimer's disease rating scale; PSQI = Pittsburg Sleep Quality Index

Table 3. Thai Geriatric Depression Scale

TGDS classification	n (%) (n = 63)
Normal (0-12)	51 (81.0)
Depression (13-30)	12 (19.1)
Mild (13-18)	7 (11.1)
Moderate (19-24)	4 (6.4)
Severe (25-30)	1 (1.6)

TGDS = Thai Geriatric Depression scale

problems among the referring demented individuals[16] and Phanasathit M et al (a non-published study) showed that 45% of Thai AD patients were associated with nocturnal behavioral disturbances.

Behavioral and mood problems were common in our series. The most common behavioral problem was paranoid/delusion (59.7%), followed by diurnal disturbance and aggressiveness (49.3% and 46.3%, respectively). The prevalence of depression in the present study was 19%, which differed from other

Table 4. Behavioral pathology in Alzheimer's disease rating scale

BEHAVE-AD	n (%) (n = 67)
No behavioral abnormality	9 (13.4)
Behavioral abnormality	58 (86.6)
Paranoid/delusion	40 (59.7)
Diurnal disturbance	33 (49.3)
Aggressiveness	31 (46.3)
Activity disturbance	26 (38.8)
Anxiety/phobia	26 (38.8)
Hallucination	23 (34.3)
Affective	17 (25.4)

BEHAVE-AD = Behavioral pathology in Alzheimer's disease rating scale

Table 5. Sleep problems identified by Pittsburg Sleep Quality Index (PSQI)

PSQI	n (%) (n = 64)
Global PSQI (n = 64)	
Significant sleep disturbance (scoree ≥5)	39 (60.9)
Insignificant sleep disturbance (score 0-4)	25 (39.1)
Sleep quality	49 (73.1)
Sleep latency	39 (60.9)
Sleep duration	29 (44.6)
Sleep efficiency	24 (36.9)
Sleep disturbance	67 (100)
Sleeping treatment	22 (32.8)
Daytime dysfunction	31 (46.3)

PSQI = Pittsburg Sleep Quality Index

studies[3,15,16]. Therefore, Thai dementia patients would have different natural history from those dementia individuals in other countries. However, our prevalence of behavioral problem was also difference from the previous Thai study conducted by Phanasathit M et al (non-published).

The present study found more hallucination and affective problems in AD than in VaD/mixed dementia. Other conditions including depression were not significant difference. Previous studies show the concordant finding with AD, which damages temporal lobe areas, was often associated with psychosis[17,18]. However, our result showed more hallucination than delusion. Antipsychotic drug used between AD and VaD group did not show significant differences. The present study also did not support some theories regarding the association between vascular dementia,

Table 6. Comparison of different demented groups

Characteristics	AD	VaD/Mixed	*p*-value	Mild dementia	Moderate to severe dementia	*p*-value	Dementia ≤2 years	Dementia >2 years	*p*-value
	Mean ± SD	Mean ± SD		Mean ± SD	Mean ± SD				
Age (years)	77.7±6.1	77.5±6.3	0.90	76.2±5.5	76.9±5.8	0.68	77.6±5.7	77.6±6.7	0.98
Duration (year)	3.7±2.8	3.2±2.5	0.41	2.7±1.9	3.4±2.8	0.28	1.3±0.7	5.3±2.2	0.00*
MMSE (0-30)	19.0±5.3	16.2±5.5	0.06	24.3±2.5	14.9±3.9	0.00*	17.4±5.4	17.7±5.7	0.82
TGDS (0-30)	8.5±4.5	9.9±6.1	0.30	9.1±5.2	8.6±4.5	0.70	9.1±4.8	9.2±5.9	0.93
ADCS/ADL (0-78)	42.9±21.1	37.5±15.4	0.23	51.8±15.1	38.1±14.3	0.00*	44.7±15.5	36.2±20.4	0.06
BEHAVE-AD									
Paranoid/delusion	2.6±3.8	2.4±4.1	0.84	2.6±3.5	2.2±4.0	0.74	2.0±3.4	3.0±4.3	0.30
Hallucination	1.7±2.2	0.7±1.5	0.03*	0.9±1.9	0.9±1.8	0.94	0.8±1.6	1.6±2.2	0.08
Activity disturbance	1.1±2.0	1.0±1.6	0.79	0.9±1.2	0.9±1.5	0.99	0.6±1.2	1.4±2.1	0.07
Aggressiveness	2.5±2.8	1.3±2.3	0.07	2.3±2.7	1.7±2.5	0.33	1.6±2.2	2.2±3.0	0.38
Diurnal disturbance	0.9±1.0	0.8±1.0	0.99	0.6±0.8	0.9±1.1	0.18	0.7±0.9	1.0±1.1	0.14
Affective	0.8±1.3	0.2±0.7	0.03*	0.5±0.9	0.3±1.1	0.61	0.2±0.5	0.8±1.3	0.01*
Anxiety/phobia	1.5±1.8	0.9±1.9	0.21	1.6±2.0	0.8±1.6	0.09	0.8±1.5	1.6±2.0	0.08
Sum_BEHAVE_part 1	10.9±11.7	7.4±10.5	0.20	9.3±10.2	7.8±11.0	0.60	6.6±7.8	11.5±13.2	0.07
Sum_BEHAVE_part 2	0.6±0.7	0.4±0.7	0.23	0.5±0.6	0.4±0.6	0.44	0.4±0.6	0.6±0.7	0.17
PSQI									
Sleep quality	0.8±0.6	0.9±0.6	0.56	0.9±0.7	0.7±0.5	0.20	0.8±0.6	0.9±0.6	0.76
Sleep latency	0.9±1.1	1.1±0.9	0.53	1.3±1.1	0.8±1.0	0.12	1.0±1.0	1.0±1.0	0.90
Sleep duration	0.8±1.0	0.5±0.8	0.20	1.1±1.2	0.6±0.7	0.02*	0.7±1.0	0.6±0.9	0.72
Sleep efficiency	0.9±1.2	0.8±1.2	0.66	1.2±1.3	0.7±1.1	0.16	0.7±1.1	1.0±1.3	0.29
Sleep disturbance	1.5±0.5	1.4±0.6	0.58	1.7±0.6	1.3±0.5	0.01*	1.4±0.6	1.5±0.6	0.73
Sleeping treatment	0.9±1.3	0.9±1.3	0.99	1.5±1.5	0.6±1.1	0.01*	0.8±1.3	1.0±1.4	0.45
Daytime dysfunction	0.7±0.9	0.7±0.9	0.75	0.5±0.9	0.8±0.4	0.25	0.6±0.7	0.8±1.0	0.34
Global PSQI	6.6±4.2	6.1±3.4	0.60	8.1±4.9	5.4±3.1	0.01*	6.0±3.7	6.8±4.0	0.40

subcortical involvement and mood disorders[19,20]. Selective serotonin reuptake inhibitor was more commonly prescribed in AD than VaD/mixed dementia. Many studies demonstrated an increase in hallucination and depression among severe dementia[21-24]. However, there was no such finding in our series. Surprisingly, in our study, sleep problems seemed to be less prevalent in moderate to severe dementia (MMSE <20) compared to mild dementia (MMSE ≥20). This finding was concordant with the more commonly used of anxiolytic and sedative agents in the milder dementia group. The affective problems in dementia patients were commonly observed in individuals with dementia longer than 2 years. They seemed to have more frequency of hallucination, activity disturbance, anxiety and phobia than the earlier dementia group, without statistical significance. Activity of daily living appeared to be worse in dementia of more than 2 years than in the other group, but there was no statistically significant difference. A similar study conducted in Thailand showed that most of Alzheimer's patients had at least one domain of BPSD affecting the caregiver and as a result, the risk factors revealed a lower score in the cognitive function and a longer duration of dementia[25].

From this cross-sectional study, the authors concluded that BPSD is very common in Alzheimer disease, vascular dementia, and mixed dementia. As these symptoms cause cognitive and functional decline, institutionalization, caregiver distress and increase in direct costs of care, the problem must be screened in all dementia patients and quickly and promptly managed. Our limitations were small sample size, not including other types of dementia i.e. fronto-temporal dementia, dementia with Lewy body and the etiologies of BPSD, which should be studied in the future. BPSD could be caused by brain abnormality or the effect from medication that patients received; the authors, therefore, suggested that the next study should enroll newly diagnosed patients not to be confounded by medication.

Potential conflicts of interest

None.

References

1. Kelley RE, Minagar A. Memory complaints and dementia. Med Clin North Am 2009; 93: 389-406, ix.
2. Rabins P, Lyketsos CG, Steele CD. Practical dementia care. New York: Oxford University Press; 1999.
3. Lyketsos CG, Steele CD, Steinberg M. Behavioral disturbances in dementia. In: Gallo JJ, Busby-Whitehead J, Rabins PV, Silliman RA, Murphy JB, Reichel W, editors. Reichel's care of the elderly: clinical aspects of aging. Baltimore: Lippincott Williams & Wilkins; 1999: 214-8.
4. Scarmeas N, Brandt J, Blacker D, Albert M, Hadjigeorgiou G, Dubois B, et al. Disruptive behavior as a predictor in Alzheimer disease. Arch Neurol 2007; 64: 1755-61.
5. Scarmeas N, Brandt J, Albert M, Hadjigeorgiou G, Papadimitriou A, Dubois B, et al. Delusions and hallucinations are associated with worse outcome in Alzheimer disease. Arch Neurol 2005; 62: 1601-8.
6. Drinka TJ, Smith JC, Drinka PJ. Correlates of depression and burden for informal caregivers of patients in a geriatrics referral clinic. J Am Geriatr Soc 1987; 35: 522-5.
7. Steele C, Rovner B, Chase GA, Folstein M. Psychiatric symptoms and nursing home placement of patients with Alzheimer's disease. Am J Psychiatry 1990; 147: 1049-51.
8. Mortimer JA, Ebbitt B, Jun SP, Finch MD. Predictors of cognitive and functional progression in patients with probable Alzheimer's disease. Neurology 1992; 42: 1689-96.
9. Murman DL, Chen Q, Powell MC, Kuo SB, Bradley CJ, Colenda CC. The incremental direct costs associated with behavioral symptoms in AD. Neurology 2002; 59: 1721-9.
10. Folstein MF, Folstein SE, McHugh PR. "Mini-mental state". A practical method for grading the cognitive state of patients for the clinician. J Psychiatr Res 1975; 12: 189-98.
11. Train The Brain Forum Committee. Thai Geriatric Depression Scale-TGDS. Siriraj Hosp Gaz 1994; 46: 1-9.
12. Galasko D, Bennett D, Sano M, Ernesto C, Thomas R, Grundman M, et al. An inventory to assess activities of daily living for clinical trials in Alzheimer's disease. The Alzheimer's Disease Cooperative Study. Alzheimer Dis Assoc Disord 1997; 11 (Suppl 2): S33-9.
13. Reisberg B, Borenstein J, Salob SP, Ferris SH, Franssen E, Georgotas A. Behavioral symptoms in Alzheimer's disease: phenomenology and treatment. J Clin Psychiatry 1987; 48 (Suppl): 9-15.
14. Buysse DJ, Reynolds CF 3rd, Monk TH, Berman SR, Kupfer DJ. The Pittsburgh Sleep Quality Index: a new instrument for psychiatric practice and research. Psychiatry Res 1989; 28: 193-213.

15. Lyketsos CG, Lopez O, Jones B, Fitzpatrick AL, Breitner J, DeKosky S. Prevalence of neuropsychiatric symptoms in dementia and mild cognitive impairment: results from the cardiovascular health study. JAMA 2002; 288: 1475-83.
16. Peters KR, Rockwood K, Black SE, Bouchard R, Gauthier S, Hogan D, et al. Characterizing neuropsychiatric symptoms in subjects referred to dementia clinics. Neurology 2006; 66: 523-8.
17. Zubenko GS, Moossy J, Martinez AJ, Rao G, Claassen D, Rosen J, et al. Neuropathologic and neurochemical correlates of psychosis in primary dementia. Arch Neurol 1991; 48: 619-24.
18. Starkstein SE, Vazquez S, Petracca G, Sabe L, Migliorelli R, Teson A, et al. A SPECT study of delusions in Alzheimer's disease. Neurology 1994; 44: 2055-9.
19. Alexopoulos GS, Meyers BS, Young RC, Campbell S, Silbersweig D, Charlson M. 'Vascular depression' hypothesis. Arch Gen Psychiatry 1997; 54: 915-22.
20. Sultzer DL, Levin HS, Mahler ME, High WM, Cummings JL. A comparison of psychiatric symptoms in vascular dementia and Alzheimer's disease. Am J Psychiatry 1993; 150: 1806-12.
21. Payne JL, Lyketsos CG, Steele C, Baker L, Galik E, Kopunek S, et al. Relationship of cognitive and functional impairment to depressive features in Alzheimer's disease and other dementias. J Neuropsychiatry Clin Neurosci 1998; 10: 440-7.
22. Drevets WC, Rubin EH. Psychotic symptoms and the longitudinal course of senile dementia of the Alzheimer type. Biol Psychiatry 1989; 25: 39-48.
23. Rosen J, Zubenko GS. Emergence of psychosis and depression in the longitudinal evaluation of Alzheimer's disease. Biol Psychiatry 1991; 29: 224-32.
24. Hirono N, Mori E, Yasuda M, Ikejiri Y, Imamura T, Shimomura T, et al. Factors associated with psychotic symptoms in Alzheimer's disease. J Neurol Neurosurg Psychiatry 1998; 64: 648-52.

ความผิดปกติทางพฤติกรรมและอาการทางจิตในผู้ป่วยสมองเสื่อม

อัครเชฏฐ์ พินิจบรรเจิดกุ, ศันสนีย์ แสงวณิช, พาสิริ สิทธินามสุวรรณ

วัตถุประสงค์: *เพื่อค้นหาความชุกและลักษณะเฉพาะของความผิดปกติทางพฤติกรรมและอาการทางจิตในผู้ป่วยสมองเสื่อม*

วัสดุและวิธีการ: *ประเมินผู้ป่วยสมองเสื่อมชนิดโดยใช้แบบทดสอบ 1) Thai Geriatric Depression Scale, 2) 23 items from Alzheimer's Disease Cooperative Study activities of daily living inventory, 3) Behavioral pathology in Alzheimer's disease rating scale, and 4) Pittsburg Sleep Quality Index*

ผลการศึกษา: *ความผิดปกติทางพฤติกรรมและอาการทางจิตในผู้ป่วยสมองเสื่อมที่พบบ่อยที่สุด คือ ปัญหาการนอนโดยพบในผู้ป่วยทุกราย รองลงมาคือ ความหวาดระแวง [paranoid/delusion (ร้อยละ 59.7)], ความแปรปรวน ระหว่างวัน [diurnal disturbance (ร้อยละ 49.25)] และพบพฤติกรรมรุนแรง [aggressiveness (ร้อยละ 46.27)] ภาวะประสาทหลอนและอารมณ์ผิดปกติพบบ่อยในโรคสมองเสื่อมอัลไซเมอร์มากกว่าชนิดอื่น การนอนผิดปกติพบในผู้ป่วยสมองเสื่อมระยะต้นบ่อยกว่าระยะกลางหรือท้าย ๆ โดยรวมแล้วระยะเวลาของการเป็นสมองเสื่อม ไม่มีความสัมพันธ์กับความผิดปกติทางพฤติกรรมและอาการทางจิต*

สรุป: *ความผิดปกติทางพฤติกรรมและอาการทางจิตพบบ่อยในผู้ป่วยสมองเสื่อมและทำให้ผู้ป่วยแย่ลง จึงจำเป็นที่จะต้องค้นหาและรักษา*