

# Backgrounds and/or Triggers of Hospitalized Dementia with Behavioral Psychological Symptoms

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## Letter to Editor

Backgrounds and/or triggers of dementia are vague except brain diseases such as cerebral stroke, brain injury, alcoholism, and schizophrenia. However, the backgrounds and/or triggers of patients who suffer from severe behavioral psychological symptoms of dementia (BPSD) and may require hospitalizations in institutions that specialize in the treatment of severe BPSD have not been specifically studied. In this work, we retrospectively investigated, through family interviews, the backgrounds and/or triggers of patients with BPSD hospitalized in Sendai Tomizawa Hospital, one of the psychiatric dementia hospitals. Consent for this was obtained from every family. All data are expressed as mean ± SD.

Ninety-four patients with severe BPSD (48 women and 46 men, ages, 81 ± 8 years) were hospitalized in a dementia ward (48 beds) of Sendai Tomizawa Hospital from September 2015 to August 2016. Among 94 patients, Alzheimer diseases, dementia with Lewy body, and brain diseases (cerebral stroke, brain injury, alcoholism, and schizophrenia) were 64, 6, and 23 patients, respectively. Their minimal state examination (MMSE), neuro-psychiatric index (NPI), and Cornell scale for depression in dementia (CSDD) [1] were 11 ± 8, 28 ± 13 and 7 ± 4 respectively. Backgrounds and/or triggers of suffering dementia with BPSD were assessed from interviews with families.

Number of patients (%)		
		CSDD >10
I.	Brain diseases	39 (41)
	1. Backgrounds: depressive diseases since younger ages	17 (18)
	2. Triggers: brain injury by bruise	8 (9)
	3. Triggers: cerebral stroke	6 (6)
	4. Backgrounds: alcoholism	5 (5)
	5. Backgrounds: schizophrenia, epilepsy	3 (3)
II.	Psychotic shock and/or anxiety	34(36)
	1. Triggers: misfortunes due to east-Japan earthquake	16 (17)
	2. Backgrounds and/or triggers: unhappiness of family	18 (19)
III.	Damages of activity of daily life after sicknesses except brain disease (triggers)	9 (10)
IV.	Unknown	12(13)
Total		94(100)
CSDD>10: more than 10 points of Cornell Scale for Depression in Dementia		18

**Table 1:** Backgrounds and/or triggers of hospitalized patient with severe BPSD.

Patients with severe BPSD had typically been hospitalized after a long-time struggle with their families (an average 4 years) since the onset of dementia; the history of the course of their diseases was obtained from family interviews. The time courses of the onsets of BPSD were within one year after onset of cognitive impairment. Table 1 shows estimated backgrounds and/or triggers of dementia with BPSD. Most patients (87%) showed certain backgrounds and/or triggers

of dementia with BPSD, such as, brain diseases including depressive diseases since younger ages (41%), psychotic shock and/or anxiety (36%), and diminished level of activity of daily life after sickness except brain diseases (such triggers as operations, bone fractures, cancer, and other organ diseases, 10%). Among brain diseases depressive diseases since younger ages (depression, depressive state, neurosis, or anaclitic character) were the most frequent backgrounds (18%). Misfortunes

due to the great east-Japan earthquake of 2011 were prevalent triggers in the area of Sendai city (17%). Unhappiness of family life was death of a loved one (triggers), and loneliness due to being childless, living with unmarried child, and divorce(backgrounds) (19%). Eighteen patients had probably had major depressive disorders, estimated by CSDD scores >10 (Table 1). Psychotic depressive backgrounds and/or triggers (summation of depressive diseases since younger ages, 18% and psychotic shock and/or anxiety, 36%) were the most frequent backgrounds and/or triggers (54%).

It is an unexpected finding that most patients in this study (87%) had certain common backgrounds and/or triggers in contrast to the usually vague backgrounds and/or triggers in other patients with less severe BPSD. Unknown backgrounds (13%) were the backgrounds such as inactivity after retirement, removal to a new house, and/or diabetes mellitus in the similar way as a commonality of patients would have some vague backgrounds [2]. Any sickness including brain diseases as well as psychotic depressions might cause dementia with depression [3] and cause some individuals to be more sensitive to the attitude of families, as their reasonable suppression by cognitive functions decline [4], which in turn could lead to agitation and violence [5]. Although CSDD suggested that a certain number of patients were suffering from major depression, we could not estimate the depressive state in

other patients because Geriatric Depression Scale is an inappropriate measure in patients with dementia. But the present study suggests that the patients with more severe BPSD had experienced some unfortunate psychotic and/or physical stress and that latent depression could be a common background and/or trigger. Patients with these types of backgrounds and/or triggers would not necessarily cause dementia with BPSD. But psychotic shock should be avoided as much as possible in order to reduce the risk of dementia with severe BPSD in aged people.

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