

Delusional Jealousy in Dementia

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Background: Delusional jealousy is a major motive for violence and is sometimes found in demented patients. This study was undertaken to investigate the frequency and the characteristics of delusional jealousy in demented patients.

Method: The sample population consisted of 133 demented patients admitted to the geropsychiatric ward. Patients with and without delusional jealousy were compared in terms of general characteristics and psychotic symptoms.

Results: Of the 133 demented patients, 21 (15.8%) showed delusional jealousy. Delusional jealousy was found in various types of dementia. There were no significant differences between the two groups in regard to age, age at onset, gender, educational level, and Mini-Mental State Examination score. All patients with delusional jealousy had at least one other psychotic symptom.

Conclusion: Delusional jealousy is a common problem in dementia. The psychobiological factors of delusional jealousy and cognitive function in demented patients may differ. There may be various underlying factors for the development of delusional jealousy in dementia.

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Delusional jealousy can be found in many psychiatric disorders and is a major motive of both suicide and homicide.¹ The prevalence of delusional jealousy has been reported as 1.1% in psychiatric inpatients and 7.0% in patients with neurobiological mental disorders.² Various neurobiological factors that cause delusional jealousy have been reported. Recently, there have been reports including demented patients with delusional jealousy.²⁻⁴ In fact, the initial clinical symptoms in the first clinical description of Alzheimer's disease included the woman's jealousy of her husband, which was later followed by

other symptoms of dementia.⁵ However, to our knowledge, no investigation has addressed this common phenomenon in dementia comprehensively. The purpose of this study was to investigate the frequency and the characteristics of delusional jealousy in demented patients.

METHOD

The sample population consisted of 133 demented patients admitted to the geropsychiatric ward (≥ 65 years). Diagnosis was based on a complete medical and neuropsychiatric examination. All patients met the criteria for dementia set by the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III-R). In each case, the patients as well as their primary caregivers were interviewed. In our study, the presence of delusional jealousy was defined as a false belief derived from a pathological jealousy that makes the patient believe that his or her spouse is unfaithful at some time during the illness. Patients with these characteristics were assigned to the jealousy group. Psychotic symptoms were assessed by a checklist modified from the Behavioral Pathology in Alzheimer's Disease Rating Scale (BEHAVE-AD) by Reisberg et al.⁶ Dementia severity was assessed using the Mini-Mental State Examination (MMSE).⁷ Two-tailed t tests and chi-square statistic were used as indicated. A p value less than .05 was considered to be significant.

RESULTS

Of the 133 demented patients, 21 (15.8%) showed delusional jealousy. Patients with delusional jealousy were found to have various types of dementia: Alzheimer's disease (12 [16.0%] of 75), multi-infarct dementia (6 [15.0%] of 40), and dementia not otherwise specified (3 [16.7%] of 18). Table 1 summarizes the characteristics and the occurrence of psychotic symptoms in the two groups of patients. There were no significant differences between the two groups in regard to age, age at onset, gender, educational level, and MMSE score. The frequency of delusions of theft, persecutory delusions, visual hallucinations, and Capgras' syndrome was significantly higher in the delusional jealousy group. All patients with delusional jealousy and 70.5% of patients without delusional jealousy had at least one other psychotic symptom, listed in Table 1.

Table 1. Characteristics of Demented Patients With and Without Delusional Jealousy

Characteristic	With Jealousy (N = 21)				Without Jealousy (N = 112)				χ^2 or t	df	p
	Mean	SD	N	%	Mean	SD	N	%			
Age, y	74.1	5.9			74.1	6.3			.02	131	.983
Sex											
Male			14	66.7			84	75.0	.63	1	.426
Education, y	6.9	5.2			6.4	5.3			.41	131	.683
Age at onset, y	70.4	6.5			70.6	6.8			.12	131	.906
Mini-Mental State Examination score	13.5	5.6			11.3	6.3			1.48	131	.140
Delusions											
Theft			17	81.0			55	49.1	7.22	1	.007
Persecutory			10	47.6			25	22.3	5.84	1	.016
Hallucinations			11	52.4			35	31.3	3.49	1	.062
Auditory			3	14.3			21	18.8	.24	1	.765
Visual			9	42.9			25	22.3	3.92	1	.048
Misidentifications ^a			10	47.6			34	30.4	2.38	1	.123
People in the house			5	23.8			18	16.1	.74	1	.362
Residence not home			6	28.6			16	14.3	2.61	1	.117
Capgras' syndrome			5	23.8			8	7.1	5.57	1	.033
Mirror sign			1	4.8			7	6.3	.07	1	1.000

^aPeople in the house = the belief that imagined people are in the house; residence not home = the belief that one's house is not one's home; mirror sign = inability to recognize one's own reflection or a statement such as "someone else is in the mirror."

Several precipitating or predisposing factors for delusional jealousy in these patients were found. One patient was in love with his neighbor and felt that his wife was having an extramarital affair with this neighbor's husband. Two patients stated that "the voices" told them that their wife was having extramarital affairs. Two patients in this study were noted to have increased sexual desire after the onset of dementia, and their delusional jealousy developed after their spouse rejected their sexual advances.

DISCUSSION

The rate of delusional jealousy in dementia in our study (15.8%) was higher than that of previous reports by Mendez et al.⁸ (2.3%) and Reisberg et al. (4.2%).⁹ The high percentage in this study may come from the sample source (geropsychiatric ward) and the duration assessed (from the onset of illness). The findings in this study are compatible with those of a previous report,³ which stated that delusions in Alzheimer's disease are mostly concerned with theft and infidelity. Our findings also demonstrated that delusional jealousy can be found in various types of dementia.

No gender difference was found in patients with and without delusional jealousy. Though previous reports suggested that males predominate in delusional jealousy,¹⁰ Soyka¹¹ found an equal gender ratio in delusional jealousy in psychiatric disorders at later ages.

The MMSE scores of the two groups did not differ in our study. This observation implies that the psychobiological factors of delusional jealousy and cognitive function may differ.³ Clinically, we found that delusional jealousy can develop during any stage of dementia. Of the

patients with delusional jealousy, 7 had symptoms at the initial stage of dementia, suggesting that delusional jealousy may herald the course of dementia.

Our study identified a strong association between delusional jealousy and several psychotic symptoms including delusions of theft, persecutory delusions, visual hallucinations, and Capgras' syndrome. It remains to be determined whether this association is due to a common underlying pathophysiologic alteration or due to a causal relationship. Crowe et al.¹² found that, compared with other patients who have delusional disorders with themes other than jealousy, individuals with jealous delusions were more likely to have a single delusion. All of our patients with delusional jealousy had at least one other psychotic symptom. This finding suggests that clinicians who discover delusional jealousy and other psychotic symptoms in aged patients should include dementia in the differential diagnosis.

Patients with delusional jealousy in our study confronted their spouse and took various steps to intervene in the imagined infidelity. Those attempts included prohibiting the spouse's communication with others, forbidding the spouse to leave the house, and secretly following the spouse. Verbal and physical abuse of the spouse was frequent. In particular, 2 male patients severely injured their wife, leading to their admission to a psychiatric ward. During psychiatric hospitalization, patients with delusional jealousy often worried that their spouse would take the opportunity to have an extramarital affair. The patients would ask to be discharged or would ask their spouse to stay with them in the hospital room.

Some likely factors, such as hallucinations, libido change, and marital problems, were found to be associ-

ated with the development of delusional jealousy in our patients. The cause of delusional jealousy in dementia varies from individual to individual. Before medical intervention can be undertaken, the underlying etiology must be explored.

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