



Length of stay of suicide attempters who
became inpatients from emergency outpatients:
examination of the predictive factors

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Abstract

Our study aims to clarify the factors related to the length of stay (LOS) of suicide attempters of psychiatric wards in an emergency psychiatry system. The subjects were 828 suicide attempters who visited the primary and secondary emergency rooms in Iwate Medical University Hospital and Iwate Advanced Emergency Medical Service Center and who were admitted to the psychiatric ward. In order to clarify the factors correlated to the LOS, each survey item of the clinical information was the explanatory variable, the number of hospitalization days was the dependent variable, and a multiple linear regression analysis was conducted. Approximately 70% of the subjects were female, and the mean LOS was 13.4 ± 40.0 days. The

items which showed a positive correlation with the LOS were: male gender, F0 (international statistical classification of diseases and related health problems-10), the absolutely dangerous group, state of hallucination-delusion, brief psychiatric rating scale total score, and suicide by drowning as the method of the attempt. The items which showed a negative correlation were: drugs as method of attempt, hospitals visited other than this hospital, inebriated state and optional hospitalization. Based on the predictive factors clarified in this study, the LOS should be estimated and the casework required for each patient during his/her hospitalization term should be implemented efficiently.

Key words : *length of stay, emergency psychiatry, psychiatric ward, suicide attempt*

I. Introduction

A considerable number of suicide attempters who are transported to the

emergency department worldwide¹⁾, and Japan is no exception. According to the emergency rescue and first aid survey of the Fire and Disaster Management Agency, the number of ambulance responses and the number transported due to self-injurious behavior increased from 1997 to 2009. Although the

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number has somewhat decreased in recent years, in 2012, the former was 66,034 and the latter was 45,081, making the ratio of self-injurious cases to the total number transported 0.9%²⁾. In addition, according to the systematic review of suicide attempts, of the 1,319,848 total number of emergency patients transported by ambulance, the ratio of suicide attempters was 4.7%³⁾.

The suicide risk of those with a history of suicide attempts has a high standardized mortality ratio (SMR) of 38.4⁴⁾, and quite a few patients who visit the emergency department end up committing suicide⁵⁾. Therefore, it is thought that emergency medical care for suicide attempters in provides a vital opportunity for medical professionals to help prevent a reattempt⁶⁾, and various intervention methods such as case management intervention have been devised thus far⁷⁾.

Suicide attempters often have a wide range of complex physical, emotional and social problems, such as physical complications and after-effects from the attempt, problems which motivated the attempt, and the risk of re-attempt after discharge from the hospital. Therefore, when physical complications and underlying social problems are severe, hospitalization is often prolonged. There are reports that suicide attempts are among factors contributing to a prolonged hospital stay, along with antipsychotic drugs and benzodiazepine drugs⁸⁾.

However, when the suicide attempt is impulsive, the patient may be discharged by the request of the patient or family members immediately after admission. Therefore, in order to prevent a re-attempt, it is necessary

for the difference in the length of stay (LOS) according to the case to be considered, the LOS of each suicide attempter to be estimated beforehand, and a treatment plan adapted to individual cases to be drawn up thereon. However, until now, there have not been any reports clarifying the predictive factors for LOS regarding suicide attempters who were admitted as an emergency patient to the psychiatric ward. In this study, suicide attempters who were transported to an emergency medical facility and subsequently admitted to a psychiatric ward were chosen as the subjects, and their background factors and clinical evaluations were surveyed with the aim of clarifying the factors correlated to the LOS in the psychiatric ward.

II. Materials and Methods

The population was 250,625 patients who were treated at the Advanced Emergency Medical Service Center at Iwate Medical University (hereafter Center) or the 1st and 2nd Emergency Department (hereafter, 1st and 2nd Emergency Dept.) during the 8 years from January 1, 2003 to December 31, 2010. Of the 13,899 emergency psychiatry patients during the above term, 2,144 patients were directly admitted to the psychiatric ward. Under the suicide and suicide attempt diagnostic criteria of Kishi et al., if one of the following conditions are met, namely 1) a statement by the individual exists, 2) a will or an advance notice by the individual exists, 3) a witness to the suicide exists, 4) a conclusion has been reached by a judicial officer or from an autopsy, and the individual survived the transfer from an emergency medical facility, the case is categorized as a suicide attempt⁹⁾. Based on

this, 828 suicide attempters were selected as the subjects of this study.

At the Center and 1st and 2nd Emergency Dept., for all emergency psychiatric cases, a full-time psychiatrist or the doctor on duty at the psychiatric ward of Iwate Medical Hospital entered patient information on the "Emergency Department receipt information sheet" (hereafter, case card), and conducted evaluation and diagnosis under the supervision of 1 senior psychiatrist (mental health designated doctor). The survey items written on the case card included the following: gender, age, cohabitant if any, employment if any, hospital visited, visit category (new patient, re-visit), transport category (Center, 1st or 2nd Emergency Dept.), lifetime or past 1-year case history of suicide attempt, appearance of suicidal intent, existence of a confidant immediately prior to the suicide attempt, confidant, time when confided in, method of suicide attempt, motive for suicide attempt, psychiatric state, the international statistical classification of diseases and related health problems (ICD)-10 classification of mental and behavioral disorders: clinical descriptions and diagnostic guidelines¹⁰⁾ (hereafter, ICD-10 diagnosis), Global assessment scale (GAS)¹¹⁾, brief psychiatric rating scale (BPRS)¹²⁾, medication adherence, existence of a life event, physical treatment if any, psychotropic drug administration if any, psychotherapy if any, and type of admission, and so on.

Furthermore, taking into consideration the severity of the physical condition at the time of the hospital visit and the treatment progress, the subjects were classified into suicide attempters with a physically severe

condition, namely the absolutely dangerous group (AD group) and the relatively dangerous group (RD group), according to Asukai's criteria¹³⁾. Also, the length of stay (hereafter, LOS) of the subjects was surveyed based on the patient summary from the time of admission to the psychiatric ward.

As for statistical analysis, in order to clarify the factors related to the LOS, a multiple linear regression analysis (stepwise method) was conducted with each survey item as the explanatory variable and the number of hospitalization days as the dependent variable. SPSS 22.0J for Windows was used for the statistical analysis, with the significance level for each examination at 5%, and the p value was indicated by number. Data with items which were personally identifiable were excluded, and consideration was given to the protection of personal information during data management and processing. Furthermore, this study received the consent of the Ethics Committee of Iwate Medical University School of Medicine.

III. Results

1. Background factors of the subjects [Table 1. Background factors (1) - (4)]

The mean value of the LOS in the 828 subjects was 13.4 ± 40.0 days (minimum 1 day, maximum 818 days, median 2 days). Regarding gender, male patients constituted only 28.9%, the average age was 35.9 ± 16.0 , 68.2% were between their teens and 30's, and 26.7% were between their 40's and 60's. Those with cohabitants constituted 76.6%, and 28.6% were employed.

58.9% visited hospitals other than this hospital. Regarding visit classification, almost

Table 1. Background factors (1)

Survey item	Frequency (%) or mean \pm SD
Mean hospitalization term	13.4 \pm 40.0
Gender	Male 239 (28.9)
	Female 589 (71.1)
Mean age	35.9 \pm 16.0
Cohabitor	Yes 634 (76.5)
	No 143 (17.3)
	Unknown 51 (6.2)
Work status	Yes 237 (28.6)
	No 511 (61.7)
	Unknown 80 (9.7)
Hospital visited	This hospital 130 (15.7)
	Other 358 (43.2)
	None 340 (41.1)
Visit classification	New visit 385 (46.5)
	Re-visit 443 (53.5)
Hospital classification	1st, 2nd 321 (38.8)
	Center 507 (61.2)
Prior history of suicide attempt during the part year	Yes 347 (41.9)
	No 461 (55.7)
	Unknown 20 (2.4)
Prior history of suicide attempt during lifetime	Yes 468 (56.5)
	No 352 (42.5)
	Unknown 8 (1.0)
Appearance of suicidal intent	On the day 388 (46.9)
	2 or 3 days before 108 (13.0)
	Within 1 week 59 (7.1)
	Within 1 month 71 (8.6)
	Over 1 month, under 1 year 18 (2.2)
	Over 1 year 57 (6.9)
	Unknown 127 (15.3)

a half of the subjects, 46.5%, were new patients. As for transport classification, 61.2% were transported to the Center.

Regarding the method of suicide attempt, in the order of frequency, 60.9% had overdosed on drugs such as prescription drugs, 13.6% had used a bladed objects for wrist cutting, and so on, 4.5% had attempted suicide by hanging, 3.2% had used gas for carbon monoxide poisoning, and so on, 2.4% had taken poison such as agricultural chemicals, 2.3% had jumped from heights, 1.7% had

attempted suicide by drowning, 0.7% had attempted suicide by immolation, 0.5% had jumped in front of a train, and so on, and 9.2% had used multiple methods. Of the above, 8.8% were in the AD group.

Concerning the suicide motive, by order of frequency, family problems constituted 21.6%, interpersonal relations constituted 19.1%, 11.0% were due to suffering from illnesses, 7.4% were due to a state of hallucination-delusion, work-related problems constituted 6.8%, economic problems constituted 4.5%,

Table 1. Background factors (2)

Survey item	Frequency (%)	
Confidant prior to suicide attempt	Yes	293 (35.4)
	No	504 (60.9)
	Unknown	31 (3.7)
Confidant	Family	102 (12.3)
	Psychiatrist	99 (12.0)
	Acquaintance	39 (4.7)
	Physician	6 (0.7)
	Other	12 (1.5)
	Confidant unknown	35 (4.2)
	Confidance unknown	31 (3.7)
	None	504 (60.9)
Time of confiding	On the day	131 (15.8)
	Within 3 days	63 (7.6)
	Within 1 week	40 (4.8)
	Within 1 month	32 (3.9)
	Over 1 month	21 (2.5)
	Confidance time unknown	6 (0.7)
	Confidance unknown	31 (3.8)
Attempt method	None	504 (60.9)
	Drugs	504 (60.9)
	Bladed object	113 (13.6)
	Poison	20 (2.4)
	Gas	27 (3.2)
	Jumping from heights	19 (2.3)
	Jumping in front of train, etc.	4 (0.5)
	Immolation	6 (0.7)
	Drowning	14 (1.7)
	Hanging	37 (4.5)
	Multiple	76 (9.2)
	Other	8 (1.0)

school-related problems constituted 1.4%, and a combination of complex problems constituted 18.6%. Subjects with a lifetime history of suicide attempts made up 56.5%, while those who had attempted suicide in the past 1 year constituted 41.9%.

The psychiatric state at the time of emergency department visit was, by order of frequency, depression 42.3%, state of semi-consciousness 33.2%, anxiety 11.1%, state of hallucination-delusion 3.6%, state of inebriation 3.6%, state of psychomotor excitement 3.3%,

stuporous state 1.6%, only physical symptoms 0.4%, and manic state 0.1%.

With regard to the ICD-10 diagnosis at the time of the visit, F0 (organic, including symptomatic, mental disorders) 1.6%, F1 (mental and behavioral disorders due to psychoactive substance use) 2.9%, F2 (schizophrenia, schizotypal and delusional disorders) 12.7%, F3 (mood[affective] disorders) 39.5%, F4 (neurotic, stress-related and somatoform disorders) 27.5%, F6 (disorders of adult personality and behavior) 8.8%, F7

Table 1. Background factors (3)

Survey item	Frequency (%)
Asukai's criteria	
RD	755 (91.2)
AD	73 (8.8)
Motive	
Family relations	179 (21.6)
Interpersonal relations	158 (19.1)
Health problems	91 (11.0)
Hallucination-delusion	61 (7.4)
Work	56 (6.8)
Economic state	37 (4.5)
School problems	12 (1.4)
Multiple	154 (18.6)
Unknown	59 (7.1)
Other	21 (2.5)
Psychiatric state	
Depression	350 (42.3)
Consciousness clouding	275 (33.2)
Anxiety	92 (11.1)
Inebriation	30 (3.6)
Hallucination-delusion	30 (3.6)
Agitation	27 (3.3)
Stupor	13 (1.6)
Physical complaint	3 (0.4)
Manic	1 (0.1)
Other	7 (0.8)
ICD-10 diagnosis	
F0	13 (1.6)
F1	24 (2.9)
F2	105 (12.7)
F3	327 (39.5)
F4	228 (27.5)
F6	73 (8.8)
F7	12 (1.5)
Other	34 (4.1)
Epilepsy	2 (0.2)
Unknown	10 (1.2)

(mental retardation) 1.5%, other diagnosis 4.1%, epilepsy 0.2% and unknown 1.2%.

Of the suicide attempters, those with good medication adherence constituted 15.8%. Regarding post-emergency department visits, 5.1% were given psychotropic drug administration, 1.0% were given psychotropic drug prescription, 30.7% had psychotherapy, and 84.5% had physical treatment.

Concerning the form of hospitalization, optional hospitalization or voluntary hospitalization

constituted 76.7%, and involuntary hospitalization, namely medical care and protection hospitalization, constituted 22.5%, emergency measures hospitalization constituted 0.5% and temporary hospitalization constituted 0.4%.

2. Results of the multiple linear regression analysis (Table 2)

Regarding significant standardized random variables from the results of the multiple linear regression analysis, 6 items were

Table 1. Background factors (4)

Survey item		Frequency (%) or mean \pm SD
GAS mean value		37.6 \pm 17.1
BPRS mean value		18.4 \pm 12.3
Medication adherence	Good	131 (15.8)
	Poor	697 (84.2)
Physical treatment	Yes	700 (84.5)
	No	128 (15.5)
Psychotropic drug administration	Yes	42 (5.1)
	No	786 (94.9)
Psychotropic drug prescription	Yes	8 (1.0)
	No	820 (99.0)
Psychotherapy	Yes	254 (30.7)
	No	574 (69.3)
Type of admission	Voluntary	635 (76.7)
	Medical care & protection	186 (22.5)
	Emergency	3 (0.3)
	Emergency involuntary	4 (0.5)

Table 2. Linear regression analysis

	Non-standardizing coefficients		Standardizing coefficients		t	p-value	95% Confidence Interval of B	
	B	Standard error	β				Lower bound	Upper bound
Male	8.614	2.369	0.137	3.635	<0.001	3.961	13.266	
Other than this hospital (hospital)	-5.629	2.181	-0.096	-2.581	0.010	-9.912	-1.346	
Drugs (method of attempt)	-7.995	2.367	-0.136	-3.378	0.001	-12.643	-3.347	
Drowning (method of attempt)	28.984	9.068	0.118	3.196	0.001	11.176	46.792	
AD group	10.316	3.818	0.105	2.702	0.007	2.819	17.814	
Hallucination-delusion (psychiatric state)	20.777	5.918	0.131	3.511	0.000	9.156	32.399	
Inebriation (psychiatric state)	-12.073	6.094	-0.073	-1.981	0.048	-24.041	-0.105	
F0 (ICD-10 diagnosis)	25.478	8.601	0.11	2.962	0.003	8.588	42.368	
BPRS total score	0.205	0.088	0.086	2.336	0.020	0.033	0.377	
Optional hospitalization (form of hospitalization)	-5.919	2.633	-0.083	-2.248	0.025	-11.09	-0.748	

extracted as positive standardizing coefficients regarding the LOS, namely male gender ($\beta = 0.137$), F0 under the ICD-10 diagnosis ($\beta = 0.110$), AD group ($\beta = 0.105$), state of hallucination-delusion under the psychiatric state ($\beta = 0.131$), BPRS total score ($\beta = 0.086$), and suicide attempt by drowning under the method of suicide attempt ($\beta = 0.118$). Four items were extracted as factors

having negative standardizing coefficients regarding the LOS, namely drugs as the method of suicide attempt (standardizing coefficient $\beta = -0.136$), hospital visited other than this hospital ($\beta = -0.096$), inebriated state under the psychiatric state ($\beta = -0.096$), and voluntary admission under the type of admission ($\beta = -0.083$).

Table 3. Factors related to hospitalization term

Factors related to prolonged stay	Factors related to reduced stay
Male	Other than this hospital
Attempt by drowning	Drugs as suicide attempt method
AD group	Inebriated state
State of hallucination-delusion	Optional hospitalization
F0	
BPRS total score	

IV. Discussion

1. Overall trend of the study subjects

According to the 2014 report, it was clarified that the average number of hospitalization days of psychiatric patients in Japan was 300 days, indicating that the stay was considerably longer in comparison to the approximately 80 days in European countries^{14,15)}. The lengthy hospitalization period in Japan has been pointed out in the past, and this period has been rated the longest among all OECD countries in the past few years.

In the report by Addisu et al.¹⁶⁾, the median LOS in the psychiatric department of general hospitals was 22 days, and the LOS in other acute psychiatric facilities overseas was between 10.5 days and 43 days¹⁷⁻²¹⁾. In Japan, the LOS was 75 days¹⁷⁾.

In contrast, the subjects in this study had a median LOS of 13.4 days, perhaps indicating the characteristics of the LOS of suicide attempters admitted to the psychiatric ward in general hospitals via emergency psychiatric service.

2. Factors leading to a prolonged LOS (Table 3)

1) Gender and method: Male gender, AD group, suicide by drowning under method of suicide attempt

(1) Male gender; in prior studies, it has been reported that LOS is influenced by such

sociodemographic factors as age, gender, marital status and place of residence^{16, 22-26)}. In this research, there was a positive correlation between the LOS and male gender. The ratio of males among suicide attempters was low²⁷⁾, and the ratio of males in this study was also low at 28.9%. In contrast, it has been said that the risk is higher for males regarding completed suicides, which is a distinctive phenomenon among high-income countries. Especially in Japan, this figure for men is 2.3 times that of females, manifesting a high ratio in comparison to other countries²⁸⁾.

As a general trend, it has been indicated that males lack assistance-seeking behavior and are prone to keeping their troubles within themselves in comparison to females, falling into a psychologically narrow-minded state, and having a stronger sense of despair²⁹⁾. Even in cases of unsuccessful suicides, it has been established that males tend to use a more radical method³⁰⁾, resulting in a higher mortality rate³¹⁾. It has been hypothesized that factors contributing to the longer LOS among males include more severe physical symptoms and serious psychological conditions.

(2) AD group; A positive correlation regarding LOS and being in the AD group was recognized. The AD group includes suicide attempters who have used radical methods of attempt such as hanging, drowning,

immolation, or gas. In this study, of the AD subjects group who were admitted into the psychiatric ward, those who attempted suicide by hanging constituted the highest ratio at 31.5% (23/73 cases). Excluding the use of firearms or poisons, hanging is the most frequently used method with a high mortality rate³²⁾. The subjects in this study were suicide attempters who were admitted into the psychiatric ward directly from the emergency department, and physically severe cases such as those requiring artificial ventilators were not included. However, those with physical complications and after-effects such as cervical spine injuries and brain hypoxia were included. Physical complications were correlated to a prolonged LOS^{25, 33)}.

In addition, it has been reported that the severity of the method of attempt and the severity of mental symptoms are correlated³⁰⁾, and it is thought that severe mental symptoms also contribute to a prolonged LOS. In the results presented here, the BPRS total score was extracted as a related factor to the prolonged LOS. In prior studies also, among suicide attempters, those who have been hospitalized in a psychiatric ward tended to be seriously ill mentally³⁴⁾. For example, in the case of suicide attempts by hanging as mentioned earlier, because this method has a high success rate with the attempter assessed as having a severe mental illness, and it is necessary to evaluate the action control ability of the patient in order to prevent a re-attempt in addition to conducting psychotherapy, it is unlikely that the hospitalization term would be short.

(3) Drowning; a positive correlation was also shown between drowning as the method

of suicide attempt and a prolonged LOS. Drowning is the method of attempt in only 1.7% of cases; however, it has the risk of causing such complications as hypothermia, aspiration pneumonia, acute respiratory distress syndrome, hypoxemia/hypoxic brain damage, and cardiopulmonary arrest³⁵⁾. In the event that such complications occur, from a physical treatment aspect, discharge from the hospital within a short space of time would be difficult. Furthermore, as mentioned earlier, it is thought that serious mental problems underly radical methods of suicide attempt, which contribute to a prolonged LOS.

2) Psychiatric problems: BPRS, state of hallucination-delusion, F0

(1) BPRS, state of hallucination-delusion; as mentioned above, when the psychiatric symptoms as indicated by the BPRS total score are severe, the LOS is seen to increase, and this seems to be particularly, so when the state of hallucination-delusion is considered. According to the report by Afilalo et al.³⁶⁾, state of delirium or hallucination-delusion are factors that are thought to delay the time of discharge. Regarding the details of the state of hallucination-delusion, there are such factors as auditory hallucination, persecution paranoia and micromania which lead to the suicide attempt. Of the 30 cases of hallucination-delusion, 26 were diagnosed as F2. It has been indicated thus far that schizophrenia and other psychotic disorders are factors leading to a prolonged LOS^{19, 20, 22)}. The lifetime risk among 5 patients with such disorders is 5.6%³⁷⁾, and in particular, the suicide rate within 1 year of developing psychotic symptoms is double the suicide rate after 1 year of developing such symptoms³⁸⁾, and such patients are said

to have a tendency to choose a more radical method of attempt³⁹⁾. In short, it is thought that with mental illness, the degree of severity of the mental condition is a factor contributing to a prolonged LOS⁴⁰⁾.

(2) F0; the breakdown of the 13 cases in the F0 range is: 7 cases of symptomatic organic mental disorder and 6 cases of dementia. In suicide attempt cases with symptomatic organic mental disorder as the background, time is required for examination and treatment of the underlying physical illness. In the process of adjusting the administering of psychotropic drugs and the timing of discharge from the hospital, consultation with other departments for the evaluation of the physical illness is often required.

In addition, in suicide attempts by dementia patients, core symptoms such as memory disorder, agnosia and apraxia underlie the depressed mood. Therefore, time is required for casework, such as gaining the understanding of family members and others, as well as the acquisition of nursing care certification and inquiry into support facilities. Under the 2015 new orange plan, policies aimed at “community-building designed for elderly dementia patients to live within the community” have been developed⁴¹⁾. However, sufficient preparation within the hospital is required before community transition is possible.

The aforementioned are the factors leading to a prolonged LOS, and each factor is linked to difficulties in treatment. In prior studies, while there have been reports indicating that the reduction of LOS does not make much difference to mental therapeutic

effects and contributes to the reduction in medical expenses, it has also been said that discharging patients with insufficient therapeutic effect increases the chance of hospital readmission⁴²⁻⁴⁵⁾. Setting an adequate LOS requires further clinical consideration according to the patient's condition and severity of symptoms.

3. Factors leading to a reduced LOS (Table 3)

1) Attributes and method: Drugs as a method of suicide attempt, hospital visited is other than this hospital

The majority of cases with drugs as the method of suicide attempt, which was extracted as a related factor to a reduced LOS, were in the RD group, constituting 495 out of 504 cases. It is thought that the milder physical condition contributed to a shorter LOS. Due to the fact that severe cases with physical complications are admitted to an emergency ward²⁹⁾, the physical condition in the majority of cases admitted to the psychiatric ward was mild. In general, suicide attempts using drugs are frequent in both males and females⁴⁶⁾, and constituted 60.9% in the study results herein. In addition, drugs which are overdosed on are often prescription drugs, and in many cases, the patient has already been receiving psychiatric treatment from a primary care physician. Therefore, unless there are serious complications, the physical treatment is completed within a short time and hospitalization in this facility is short term, until the patient returns to his/her primary care physician at another facility. However, since there have been reports indicating that overdose is often linked to other methods of attempt with a high mortality rate⁴⁷⁾, an approach to prevent

any reattempt needs to be taken during the short LOS from the perspective of suicide prevention. In so doing, sharing information with the primary care physician at the time of the emergency department visit or hospital admission and implementing close hospital-clinic and hospital-hospital cooperation are vital.

2) Psychiatric problems: state of inebriation, voluntary admission

(1) State of inebriation: Up to this point, complications regarding substance dependence disorder have been linked to a prolonged LOS⁴⁸⁾. However, the subjects in this study are characteristically different from general substance dependence cases because they have gone through the emergency psychiatric service. Cases of inebriation which result in psychiatric admission do not have severe consciousness disorder, and are accompanied by impulsivity and agitation, or occur concurrently with overdose or wrist cutting, which increase the risk of suicide. The correlation between alcohol and suicide has long been known⁴⁹⁾. However, when one recovers from the inebriated state, oftentimes the suicidal intent has also disappeared, and discharge after a short stay is common. Needless to say, even if an early discharge has been permitted after the acute phase treatment, the danger of alcohol must be fully explained to the patient as well as to family members, and patient education needs to be carried out repeatedly at the outpatient department.

(2) Optional hospitalization: In Japan, optional hospitalization means voluntary hospitalization. According to a systematic review comparing voluntary admission to

involuntary admission, it has been indicated in 17 reports that involuntary hospitalization results in a longer LOS in comparison to voluntary hospitalization⁵⁰⁾. Due to the fact that intervention for those who are voluntarily hospitalized is not coerced and the patient takes the initiative in the treatment, there is a better therapeutic relationship⁵¹⁾. Because the patient is more likely to have a better understanding of his/her illness and the treatment target is easier to set, the possibility of a shorter LOS is greater in comparison to involuntary hospitalization. Moreover, for human rights reasons in Japan, in cases of voluntary hospitalization, the patient may be discharged upon examination by the physician at the request of the patient him/herself, resulting in a shorter LOS than expected. However, in such cases, it is vital that the risk of reattempt be explained to family members and to give thorough consideration to whether such involuntary hospitalization as medical care and protection admission is required.

4. The predictive factors of LOS of suicide attempters

In this study, regarding the LOS of suicide attempt patients who were admitted to the psychiatric ward via the psychiatric emergency service, factors leading to a prolonged stay, namely male gender, F0 under ICD-10 diagnosis, AD group, state of hallucination-delusion under the psychiatric state, BPRS total score, and drowning as the method of suicide attempt, were identified. Factors leading to a reduced stay, namely drugs as the method of suicide attempt, hospitals other than this hospital were visited, inebriated state under psychiatric state, and voluntary hospitalization, were identified.

These factors were related to severity of the physical condition, serious psychiatric symptoms, social life functions, treatment status, and initiative in the treatment, and so on.

The difficulty in addressing short-term hospitalization cases is that there is a time restriction in patient intervention during the hospitalization period. From the perspective of suicide prevention, taking measures immediately following the suicide attempt is regarded as vital, and even if the LOS is limited, necessary evaluation and intervention must be carried out without fail. To that end, it is imperative that evaluation be made of psychiatric symptoms and the possibility of a reattempt according to protocol based on evidence, and effective introduction of necessary casework according to the patient must be implemented. In recent years, there have been reports⁷⁾ verifying the effect of suicide reattempt prevention by means of systematic case management, and the need thereof is increasing.

Lastly, the following were regarded as

limitations of the study: Only patients who were hospitalized at the psychiatric ward of a general hospital via the psychiatric emergency service were selected as subjects for this study, and suicide attempt cases at psychiatric clinics as well as admission cases via the emergency center ward were excluded.

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救急外来から精神科病棟入院となった
自殺企図者の入院期間について：
その予測因子に関する検討

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要旨

本研究では, 自殺未遂者の入院期間 (LOS) と関連する因子を明らかにし, 入院後の精神科医療の計画立案に役立てることを目的とした. 岩手県高度救命救急センターおよび岩手医科大学附属病院 1 次 2 次外来を受診し, 精神科病棟に入院した自殺未遂者 828 件を対象とした. LOS と関連する因子を明らかにするために, 臨床情報の各項目を説明変数, 入院日数を従属変数とし, 線形重回帰分析を行った. 対象の約 7 割は女性であり, LOS の平均値は 13.4 ± 40.0 日であった. 入院

期間と正の相関を示すものは, 男性, F0 (international statistical classification of diseases and related health problems-10), 絶対的危険群, 幻覚妄想状態, brief psychiatric rating scale 合計点, 企図手段としての入水であり, 負の相関を示すものは, 企図手段としての薬物, 当院以外の通院先, 酩酊状態, 任意入院であった. 今回明らかとなった予測因子に基づいて LOS を推定し, 入院期間内に患者ごとに必要なケースワークを効率よく導入すべきである.

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