One-year prevalence and associated factors of suicidal ideation among patients with newly diagnosed head and neck cancer in Japan: a longitudinal study

資料9

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Background

Patients with head and neck cancer have over twice the risk of suicide compared with patients with other malignancies. This increased risk is multifactorial. Although the risk of suicide is considered to be high after cancer diagnosis, studies examining suicidal ideation within the first year following diagnosis are limited.

Aim

1) To assess suicidal ideation through structured clinical interviews
2) To examine demographic, clinical, psychological, and social factors associated with suicidal ideation, and provide foundational evidence for developing suicide prevention interventions

Methods

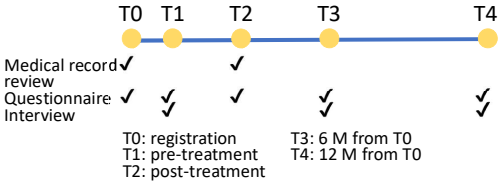
■ **Study design** a prospective, longitudinal study

■ **Subjects** Newly diagnosed primary HNC patients (≥20 yo) in National Cancer Center Hospital, Tokyo

■ **Measures** (Table 1, 2)

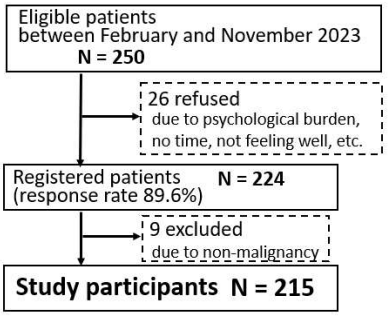
- **Suicidal ideation (SI)**
  Interview: Columbia Suicide Severity Rating Scale (CSSRS)
  Questionnaire: Suicide Behaviors Questionnaire-Revised (SBQR score 7 or higher = suicidal)
- Other measures
- Sociodemographic & clinical variables

■ **Schedule**



■ **Statistical analysis**

- One-year prevalence of SI
- t-test, chi-square test, Mann-Whitney U test
- Binary logistic regression



- The 1-year prevalence of suicidal ideation evaluated by structured interviews was 7% in newly diagnosed primary Head & Neck Cancer.
- Associated factors included younger age, ECOG PS ≥1, and psychiatric history.

Results

Table 1. Sociodemographic and clinical factors of patients classified by SI

	Total N=215	Suicidal N=35	Nonsuicidal N=175	p value
Age, years, mean ± SD	64.1 ± 13.1	57.5 ± 15.7	65.5 ± 12.2	.035
Gender, no. (%)				.940
Male	166 (77.2)	27 (77.1)	134 (76.6)	
Female	49 (22.8)	8 (22.9)	41 (23.4)	
Education, no. (%)				.821
High school or lower	66 (30.7)	11 (32.4)	55 (34.4)	
Some college or higher	128 (59.5)	23 (67.6)	105 (65.6)	
Marital status, no. (%)				.237
Married	153 (71.2)	21 (60.0)	129 (73.7)	
Single	36 (16.7)	9 (25.7)	25 (14.3)	
Divorced	16 (7.4)	4 (11.4)	12 (6.9)	
Widowed	10 (4.7)	1 (2.9)	9 (5.1)	
Household size, no. (%)				.194
Living alone	44 (20.5)	10 (28.6)	33 (18.9)	
Two or more	171 (79.5)	25 (71.4)	142 (81.1)	
Had children, no. (%)				.204
None	56 (26.0)	12 (34.3)	42 (24.0)	
Yes	159 (74.0)	23 (65.7)	133 (76.0)	
Occupational status, no. (%)				.188
Full-time	89 (41.4)	17 (48.6)	72 (43.6)	
Part-time	16 (7.4)	2 (5.7)	14 (8.5)	
Absence from work	16 (7.4)	6 (17.1)	10 (6.1)	
Housemaker	16 (7.4)	2 (5.7)	14 (8.5)	
Unemployed	63 (29.3)	8 (22.9)	55 (33.3)	
Income status, no. (%)				.287
<5 million yen	110 (46.5)	15 (42.8)	85 (51.5)	
5-10 million yen	49 (22.8)	7 (20.0)	42 (25.5)	
≥ 10 million yen	37 (17.2)	9 (25.7)	28 (17.0)	
Caring for family, no. (%)				.717
No	186 (86.5)	31 (88.6)	151 (86.3)	
Yes	29 (13.5)	4 (11.4)	24 (13.7)	
Change in work (T2), no. (%)				.006
No	158 (73.5)	22 (64.7)	136 (85.0)	
Yes (absence from work/retirement)	36 (16.7)	12 (35.3)	24 (15.0)	
Change in income status (T2), no. (%)				.058
No change	159 (74.0)	24 (70.6)	135 (84.4)	
Decreased	35 (16.3)	10 (29.4)	25 (15.6)	
Performance status[1], no. (%)				.013
0	168 (78.1)	22 (62.9)	143 (81.7)	
≥1	47 (21.9)	13 (37.1)	32 (18.3)	
Cancer sites, no. (%)				.732
Hypopharyngeal	54 (25.1)	5 (14.3)	47 (26.9)	
Oral	31 (14.4)	4 (11.4)	26 (14.9)	
Tongue	28 (13.0)	5 (14.3)	23 (13.1)	
Laryngeal	23 (10.7)	6 (17.1)	17 (9.7)	
Mid-pharyngeal	21 (9.8)	4 (11.4)	16 (9.1)	
Thyroid	16 (7.4)	4 (11.4)	11 (6.3)	
Others	42 (22.5)	7 (20.0)	35 (20.1)	
Cancer stage, no. (%)				.318
0	26 (12.1)	2 (5.9)	23 (13.4)	
I	45 (20.9)	6 (17.6)	39 (22.7)	
II	37 (17.2)	4 (11.8)	32 (18.6)	
III	30 (14.0)	6 (17.6)	24 (14.0)	
IV	73 (34.0)	16 (47.1)	54 (31.4)	
First treatment, no. (%)				
Operation (yes)	141 (65.6)	25 (71.4)	116 (69.5)	.818
Chemotherapy (yes)	38 (17.7)	8 (22.9)	30 (18.0)	.501
Radiation (yes)	35 (16.3)	5 (14.3)	30 (18.0)	.601
Perception of the chance of cure (T1), no. (%)				.047
High (≥ 50 %)	170 (79.1)	25 (71.4)	145 (87.9)	
Slightly high (25-49 %)	19 (8.8)	5 (14.3)	14 (8.5)	
None-Low (0-24 %)	11 (5.1)	5 (14.3)	6 (3.6)	
Acceptance of illness (T1), no. (%)				.538
No	17 (7.9)	2 (5.7)	15 (8.9)	
Yes	187 (87.0)	33 (94.3)	154 (91.1)	
Psychiatric history, no. (%)				<.001
Yes	22 (10.2)	11 (31.4)	10 (5.7)	
Past history of Major depressive disorder, no. (%)				<.001
Yes	17 (7.9)	8 (23.5)	9 (5.4)	
Major depressive disorder (T1), no. (%)				<.001
Yes	5 (2.3)	4 (11.8)	1 (0.6)	
Alcohol dependence (T1), no. (%)				.473
Yes	11 (5.1)	1 (2.9)	10 (6.0)	
Nicotine dependence, no. (%)				.313
FTND ≥ 6	8 (3.7)	2 (5.7)	5 (2.9)	

[1]defined by the Eastern Cooperative Oncology Group
FTND: Fagerstrom Test for Nicotine Dependence

Table 2. Longitudinal data

		T1	T2	T3	T4
Suicidal ideation (CSSRS), no. (%)	Past history				
No	183 (91.5)	192 (96.0)	-	144 (94.1)	135 (97.8)
Yes	17 (8.5)	8 (4.0)	-	9 (5.9)	3 (2.2)
MDD (MINI), no. (%)	Past history				
Yes	17 (8.5)	5 (2.5)	-	3 (1.4)	5 (2.4)
Alcohol dependence (MINI), no. (%)					
Yes	-	11 (5.5)	-	4 (2.9)	1 (0.7)
Alcohol abuse (MINI), no. (%)					
Yes	-	7 (3.5)	-	0 (0)	0 (0)
PHQ-9	(T0, N=214)	(T1, N=205)	(T2, N=194)	(T3, N=181)	(T4, N=176)
Total mean ± SD	5.33 ± 5.21	4.39 ± 4.65	4.96 ± 4.59	4.31 ± 4.83	3.36 ± 3.88
5-9, no. (%)	51 (23.7)	45 (21.4)	50 (23.8)	34 (16.2)	42 (20.0)
≥10, no. (%)	44 (20.5)	30 (14.3)	31 (14.8)	24 (11.5)	11 (5.3)
Suicidal ideation (SBQR total)		(T1, N=205)	(T2, N=194)	(T3, N=182)	(T4, N=175)
Mean ± SD	-	3.77 ± 1.65	3.74 ± 1.64	3.86 ± 1.76	3.78 ± 1.55
Shame and Stigma Scale total		(T1, N=205)	(T2, N=194)	(T3, N=176)	(T4, N=171)
Mean ± SD	-	19.90 ± 9.19	19.58 ± 8.45	19.79 ± 9.52	19.18 ± 9.23
EQ 5D-5L		(T1, N=204)	(T2, N=194)	(T3, N=181)	(T4, N=178)
Mean ± SD	-	0.82 ± 0.15	0.76 ± 0.14	0.81 ± 0.15	0.82 ± 0.15
Physical symptoms (CTCAE grade 1 or above) no. (%)		(T1, N=202)	(T2, N=194)	(T3, N=181)	(T4, N=176)
Dry mouth		79 (39.1)	111 (57.2)	100 (55.2)	90 (51.1)
Difficulty swallowing		78 (38.6)	134 (69.1)	91 (50.3)	75 (42.6)
Mouth/throat sores		94 (46.5)	127 (65.5)	82 (45.3)	61 (34.7)
General pain		105 (52.0)	125 (64.4)	87 (48.1)	89 (50.6)
Insomnia		108 (53.5)	112 (57.7)	101 (55.8)	85 (48.3)
Fatigue		102 (50.5)	121 (62.4)	87 (48.1)	87 (49.4)

MDD: Major Depressive Disorder; PHQ-9: Patient Health Questionnaire-9; CTCAE: Common Terminology Criteria for Adverse Events

Table 3. Logistic regression model

	Standard Error	Odds Ratio	95% confidence interval	p-value
Age	0.02	0.95	0.92-0.98	0.003
Performance status (0: 0, 1: 1 or above)	0.51	3.80	1.41-10.22	0.008
Past history of mental illness (0: no, 1: yes)	0.57	5.25	1.74-15.90	0.003
Major depression in T1 (0: no, 1: yes)	1.32	13.10	0.99-172.71	0.051

Clinical implications

Routine screening for depressive symptoms and suicidal ideation should be integrated into the clinical management of head and neck cancer patients, particularly during the post-treatment period when risk appears to increase. Active symptom management and psychosocial interventions may mitigate both physical and psychological suffering and help reduce suicide risk.