

medical illness (OR=1.633, $p=0.034$). The decedents who were male (OR=2.635, $p=0.001$) and had suicide triggers by financial problems (OR=2.531, $p=0.004$) in the NI group appears significant results compared with the decedents in the NA group.

Conclusions: The suicide in the intoxicated state was associated with previous suicide attempt, while medical illness was a protective factor. The male and financial problems were the risk factors in the suicide who consumed a small amount of alcohol. It is necessary to recognize and discuss with high risk patients about the role of acute alcohol use in suicidal behavior.

Keywords: suicide, alcohol intoxication, autopsy, blood alcohol concentration

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The neural correlates of suicidal ideation in healthy subjects

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Abstract

Introduction: There have been multiple explorations for the finding of biological markers of suicide. Some studies indicated the association of neurophysiological markers with suicidal ideation (SI). In previous studies, antidepressant treatment-emergent SI was associated with theta value in midline right frontal region, and pretreatment assessment of frontal quantitative EEG (QEEG) may be associated with worsening SI during antidepressant treatment. However, there is limited understanding for the alteration of EEG theta power as biological marker for SI, not in the course of antidepressant treatment. We examined frontal theta power involvement with SI in healthy subjects

Method: Resting QEEG data were recorded from 90 healthy subjects. Subjects who had an experience of suicide attempt, current and/or lifetime Axis I and II psychiatric disorders were excluded. According to Scale for suicidal ideation (SSI), the subjects were divided into two group: high SSI group ($n = 33$) and low SSI group ($n = 57$). Individual frontal electrodes (Fp1, Fp2, F7, F3, Fz, F4, F8) and central midline electrodes (FCz, Cz) were examined with absolute power in theta band. Clinical state was assessed using Hospital Anxiety and Depression.

Result: We found that theta power in all channels positively correlated with SSI. High SSI group showed higher theta power at Fz, F4, FCz, Cz than low SSI group. No significant differences were found at the other electrodes. Theta power in fronto-central region was significantly increased in high SSI ($t = -3.173$, $p = 0.0029$) compared to low SSI

Conclusion: QEEG theta power at midline locations could be associated with SI in healthy subjects. Theta activity in fronto-central region may be more reliable region to predict SI than midline right and left frontal region. Further QEEG studies are needed to assess potential of QEEG as biomarker for SI in clinical monitoring.

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Characteristics of Adolescents Who Visit the Emergency Department Following Suicide Attempts

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Objective: This aim of the present study was to determine the demographic and clinical characteristic of suicide attempts in adolescents compared than those of adults.

Methods: The subjects were suicide attempters visited in emergency department at a university hospital. We prospectively collected data on socio-demographic variables, clinical and suicide-related characteristics. Comparisons were made on variables between adolescents (less than 18 year, $n=113$) and adult suicide attempters ($n=1274$).

Results: Suicide attempters in adolescents were more often women than in adults (79.6% vs. 56.3%, $p<0.001$). Adolescent used more non-lethal method such as poisoning of over the counter drugs and wrist cutting, while adult used more lethal method such as poisoning of pesticide or carbon monoxide ($p<0.001$). However, jumping from high place was more frequently used in adolescents (5% vs. 1.2%, $p<0.001$). With regard to motivation of suicide attempt, adolescent had more interpersonal problems ($p<0.001$), less financial and physical problems ($p<0.001$ and $p=0.001$). In adolescents, intention was less serious ($p=0.003$) and help seeking behavior following suicide attempts was more common compared than in adults ($p=0.004$)

Conclusion: Our findings suggest that suicide attempt in adolescents may be impulsive and help seeking behavior resulted from maladaptive or premature coping strategies managing interpersonal problems. Programs for managing interpersonal problems might be effective for prevention of suicide attempts in adolescent.

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The Influence of Alcohol in Diurnal Variation of Deliberate Self-Poisoning

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Objective: Alcohol is implicated in up to a third of suicides and even greater number of suicide attempts. There is evidence that individuals who engage in alcohol related (Alc+) and non-alcohol related (Alc-) suicidal behaviour represent clinically distinct groups who require alternate suicide prevention strategies¹, though limited studies have investigated the underlying neurobiology which may inform targeted treatment options. As both alcohol use and suicidal behaviour independently demonstrate significant circadian variation^{2,3} there is the possibility that alcohol may be linked to suicidal behaviour via its interaction with the biological clock. The objective of this study was to investigate the proportion of diurnal variation in suicidal behaviour in the form of deliberate self-poisoning that may be attributed to co-ingestion of alcohol.

Methods: This study is a retrospective analysis of consecutive hospital presentations following deliberate self-poisoning between 1987 and 2013. Poisonings were split up into Alc+ versus Alc-. Records from the Australian Bureau of Meteorology were used to gain information on temperature and sunlight hours for the date of each poisoning. Data on the group as a whole, by sex and by alcohol, will be analysed by cosinor analysis. Temperature and sunlight variables will be built into the model to adjust for seasonality.

Results: 15084 deliberate self-poisoning admissions, for 9194 patients (3832 males and 5362 females) will be included. 5012 (33.2%) of these admissions involve co-ingestion of alcohol. Preliminary results suggest diurnal patterns of deliberate self-poisoning differ between Alc+ and Alc-. Data analysis is ongoing.

Conclusions: This will be the first study to expose diurnal and seasonal patterns that differentiate alcohol related deliberate self-poisoning from non-alcohol related deliberate self-poisoning, and to statistically model the influence of alcohol co-ingestion. Patterns specific to Alc+ behaviour may elucidate chronotherapeutic prevention strategies and shed light on the role of alcohol in suicidal behaviour.

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Seasonality of suicide mortality and climate variables from 1992 to 2010 in South Korea

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Abstract

There have been many studies report that suicide rate has significant seasonal variations. The suicide rates in South Korea is ranked in the top among developed countries. There are four distinct seasons in a year and a large variation between temperature or precipitation and sunlight radiation in South Korea. The aim of this study is to find out the seasonality of completed suicide and to assess the associations of daily completed suicide rate with climate variables in South Korea. The completed suicide rate and demographic information were derived from the National Statistical Office of South Korea and the climatic data on the mean temperature, daily temperature range, solar radiation, sunshine duration, and relative humidity were extracted from Korea Meteorological Administration (KMA) for the period from 1992 to 2010. To assess the seasonal variations of suicide rate, we estimated a nonlinear relationship between the daily spatial suicide as a dependent variable and the month as independent variable, using a GAM (Generalized Additive Model). We also analyzed the association of daily spatial suicide with solar radiation. For this analysis, we considered the solar radiation as an independent variable and the daily spatial suicide as a dependent variable in GAM, adjusting for the potential confounding factors such as temperature, daily temperature range, relative humidity and time trend in nonlinear form and a region. We assumed that the suicide variable has poisson distribution and used log link function. There was a peak of suicide rates in May, and a dip in winter period was observed, which remained relatively consistent over years. The solar radiation has a significant linear relationship with suicide ($p < .001$). We found that the daily spatial suicide is expected to increase 1.01 times when

that solar radiation increases by 1(MJ/m²), adjusting for the confounder factors.

Keywords: Suicide, Seasonality, Solar radiation, Climate

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Relationship between the acceptance of psychiatric treatment after suicidal attempt and medical comorbidity

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Abstract

Objectives: Suicide attempters have impaired decision making and are at high risk of reattempt. Therefore it is important to refer them to psychiatric treatment. Especially, People with medical comorbidity are at higher risk of suicidal attempt and mortality. The aim of this study was to investigate the characteristics of suicidal attempters and to analyze the influence of the medical comorbidity on decision to receive psychiatric treatment after visit to an emergency department.

Methods: One hundred and thirty two patients, who visited the emergency room of a general hospital in Gyeonggi-do between January, 2012 and December, 2012 were enrolled as the subjects of this study. After reviewing each subject's medical records retrospectively, demographic and clinical factors were analyzed.

Results: Regardless of the engagement type, either via admission or outpatient clinic, the determinant factors of psychiatric treatment engagement were psychiatric diagnosis, employment status, previous psychiatric treatment history, and previous attempt history. Comparison of severity of medical comorbidity (Charlson Comorbidity Index) showed that suicide attempters who received psychiatric treatment via admission or refused the treatment tended to have higher level of medical comorbidity than who received psychiatric treatment via outpatient department.

Conclusions: Our findings showed that medical comorbidity of suicide attempters affected the decision to accept psychiatric treatment. All psychiatrists should evaluate the presence and the severity of medical comorbidity of the suicide attempters and consider implementing more intervention for the medically ill attempters who are willing to discharge against advice.

Key Words: Suicide attempter, Emergency room, Psychiatric consultation, Medical comorbidity

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The Characteristics of Elderly Suicide Attempters in Korea: Comparison Study of Old-old vs. Young-old

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Abstract

Purpose: This study aimed to investigate demographic and clinical characteristics of the elderly suicide attempts in Korea.

Methods: Participants were suicide attempters who visited the Emergency Department and agreed to psychiatric interview. A total of 384 subjects participated in this study. They were divided into three groups by age; middle age (MA): 45–59 years,