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A study of Quality of Life of Caregivers of Recurrent Ischemic Stroke Patients

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Abstract

Background: Recurrence stroke has been an important health problem. It has led to a high rate of mortality and disability and causes burden to the family especially caregivers. The aim of this study was to study the level of quality of life in caregivers of recurrent ischemic stroke patients and also study factors affecting the quality of life of caregivers of recurrent ischemic stroke patients.

Methods: A descriptive design was used in this study and 65 caregivers involved in this study by convenience sampling. The questionnaires consist of demographic data, social support instrument, Hospital Anxiety and Depression Scale (HADS), and WHOQOL-BREF-THAI assessment. Descriptive statistics and Pearson's Product Moment Correlation Coefficient were used to analyze the data.

Results: The results showed that caregivers had low social support (87.69%) and most of them had normal anxiety and depression level (86.15 and 90.77% respectively) while anxiety and depression cases were in low percentage (3.08 and 1.54% respectively). The mean quality of life score in a low level was 59.21 (S.D.=6.20). The social support, anxiety, and depression were positive correlation with quality of life's caregivers with significant difference in social support and depression. (social support: $r=.480$; $p=.001$, depression: $r=.447$; $p=.003$) while anxiety showed no significant difference at .001 level ($r=.209$; $p=.190$).

Conclusions: In conclusion, the factors influencing the QOL of recurrence ischemic stroke's caregivers are social support, anxiety and depression in a positive correlation. The suggestion that having someone or some organizations who will provide social support and emotional support was important for the caregivers of recurrence ischemic stroke. Furthermore, the public health center's nurse needs to provide social support and emotional support for the caregivers to improve quality of care for the recurrence ischemic stroke patients.

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Benefit of Telestroke System on Stroke Unit Care in Thailand

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Abstract

Introduction: Treatment in the acute stroke unit is an important process for acute stroke management and prevention of its potential serious complications. Telestroke system can be applied for patient care in the stroke unit. However the evidence is still limited.

Hypothesis: Telestroke consultation in a stroke unit can improve patient outcome.

Methods: A cross sectional study was conducted at the stroke unit, King Chulalongkorn Memorial Hospital, Bangkok, Thailand. All patients managed by residents under supervision of stroke specialists through real time video telestroke during July to September 2015 were studied. The results were compared with the control group which include patients who were admitted at the same stroke unit before the telestroke implementation. Perception of the patients and relatives about the telestroke consultation was also collected by a questionnaire.

Results: There were 139 patients and 146 controls. The mean age of patients were 65.1 years old. There were 38 teleconsultation sessions during the three-month study period. The mean duration of teleconsultation was 42 minutes. The mean number of patients per session was 4.4 cases. Change of treatment after teleconsultation was found in 25.4 percent of the cases. The in hospital mortality during the period of teleconsultation was less than control. Patients who were managed under telestroke system had significantly less modified Rankin score at discharge than those treated with standard care. Almost all patients and relatives were satisfied with the management with telestroke system.

Conclusions: Telestroke consultation for stroke unit management can reduce mortality and morbidity in acute stroke patients admitted in stroke unit in tertiary care center. It is well accepted by patients and relatives. (*J Thai Stroke Soc 2015; 14 (3_suppl_1): S2.*)

Keywords: Telestroke, Stroke unit, Stroke

Factors Associated with Symptomatic Intracerebral Hemorrhage after Thrombolytic Therapy in Acute Ischemic Stroke

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Abstract

Introduction: Intracerebral hemorrhage (ICH) is one of complications of intravenous recombinant tissue plasminogen activator (IV-rtPA) for acute ischemic stroke (AIS) and this will be serious if it is symptomatic. Recently, numerous studies reported some independent risk factors of ICH but the data about symptomatic ICH risk factors were limit. This study was conducted to evaluate the independent factors of symptomatic ICH after IV-rtPA administration in AIS patients.

Methods: We performed a cross-sectional study in AIS patients who received IV-rtPA and had ICH on their repeated brain computed tomography (CT) at 24 hours after thrombolytic therapy. Using logistic regression model, the relationship of baseline variables with symptomatic and asymptomatic intracerebral hemorrhage during the first 24-36 hours after treatment was assessed.

Results: Overall, 256 IV-rtPA-treated patients were enrolled. The prevalence of thrombolysis-related ICH was 13.6 % with 6.6 % and 7.0 % were symptomatic and asymptomatic ICH respectively. In multivariable model, the recruited factors from univariate analysis were age > 70 years (odds ratio[OR],11.4;95% confidence interval[CI], 2.0-66.4), antithrombotic usage (OR,3.5;95%CI,0.7-16.8), anemia (OR,5.6;95%CI,1.0-32.5), high first 24-hour systolic blood pressure (SBP) (OR,23.3;95%CI,4.0-135.4), brain CT with cord sign (OR,4.5; 95%CI,1.0-19.9), high blood volume in repeated brain CT (OR,4.8; 95%CI,0.8-27.6) and renal impairment (OR,3.7; 95%CI, 0.8-17.7). In the final multivariable logistic regression model, high first 24-hour systolic blood pressure (OR,47.7; 95%CI, 2.0-1138.5) was independently associated with an increased risk of symptomatic intracerebral hemorrhage. (OR,47.7;95%CI, 2.0-1138.5)

Conclusions: The prevalence of symptomatic ICH after IV-rtPA was 6.6%. High first 24-hour systolic blood pressure was independent factor associated with this condition.

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Keywords: Symptomatic intracerebral hemorrhage, rtPA, Stroke

Factors related to Eating Behaviors in Stroke Patients

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Abstract

Background: Eating behavior may influence stroke outcome in stroke patients. This study aims to explore the eating behaviors and the factors related to eating behaviors in stroke patients.

Methods: Patients who were diagnosed with stroke for 1 to 12 months at outpatient clinic at King Chulalongkorn Memorial Hospital, Phramongkutklao Hospital, and Rajavithi Hospital were studied. Demographic data, swallowing problem, depression, family relationship, patients' self-dependence, and eating behavior were collected.

Results: There were 121 patients in the study. Participants with stroke had good level score of eating behavior ($\bar{X} = 124.92$, $SD = 3.30$) and had excellent behavior of fat consumption ($\bar{X} = 24.64$, $SD = 4.81$) good behavior of starch, meat, fruit, vegetable and seasoned food consumption as well as fair behavior of beverage. The severity of stroke and the state of patients' depression was negatively associated with eating behaviors ($r = -.20$ and $r = -.48$ respectively; $p = 0.05$). Family relationship and self-dependence had significant positive correlation with the eating behaviors in stroke patients ($r = .42$ and $r = .28$ respectively; $p = 0.05$).

Conclusions: Patients with stroke should be evaluated on eating behaviors. Nurses should encourage the good eating behaviors and provide information regarding eating behavior and severity of disease, depression, family relationship, and self-dependence.

(*J Thai Stroke Soc* 2015; 14 (3_suppl_1): S4.)

Intravenous recombinant tissue plasminogen activator (rt-PA) for acute ischemic stroke in Northeastern of Thailand

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Abstract

Background: Standard treatment of acute ischemic stroke by intravenous recombinant tissue plasminogen activator (rt-PA) within 4.5 hours after onset has good outcome. Stroke fast track was developed in Northeastern of Thailand since 2008.

Objectives: Assess outcome, complications of treatment and factors making patients delay in reaching hospital in Srinagarind, Chumphae, Suphasit, Nakhonphanom, Chaiyaphum, Kalasin and Maharaj Nakhonratchasima hospital

Methods: This study was designed as descriptive retrospective study. Data from medical records of acute ischemic stroke patients reaching hospital within 4.5 hours after onset and received rt-PA during 2010–2012 were collected. National Institutes of Health Stroke Scale (NIHSS), modified Rankin scale (mRS) before and after treatment, mean onset-to-door time and complications of treatment were analysed.

Results: Of 778 patients, good outcome (post-treatment NIHSS 0–6 or mRS 0–1) was 65.44%. Mean NIHSS before and after treatment were 12.46 and 7.77 respectively. Mean mRS before and after treatment were 3.91 and 2.55 respectively. Factors leading to poor outcome was atrial fibrillation (AF) (OR 2.38, P-value 0.006, 95%CI 0.22–0.83) and onset-to-needle time more than 180 minutes (OR 14.78, P-value < 0.001, 95%CI 7.91–27.62). Mean onset-to-door time was 1.85 ± 1.05 hours. Previous visiting medical center unavailable for rt-PA made patients delay reaching hospitals (OR 1.62, P-value 0.000, 95%CI 1.28–2.04). Mean onset-to-needle time was 3.08 ± 1.11 hours. Mortality rate was 5.66% resulted from intracranial hemorrhage (ICH) 45.65% and extensive ischemic stroke 40.91%. Intracranial hemorrhage was found 25.45% divided into asymptomatic 16.97% and symptomatic 8.48%. Factors resulting in increased symptomatic ICH were diabetes mellitus (OR 2.43, p-value 0.026, 95% CI 1.11–5.32) and early ischemic change or Edema > 33% on initial CT brain (OR 3.07, p-value 0.019, 95% CI 1.20–7.83). Asymptomatic ICH influenced by AF (OR 2.95, p-value 0.000, 95% CI 1.69–5.14), onset-to-needle time more than 180 minutes (OR 4.31, p-value 0.007, 95% CI 1.50–12.35), initial NIHSS 16–20 (OR 20.14,

p-value 0.003, 95% CI 2.69–150.41) and initial NIHSS \geq 20 (OR 31.94, p-value 0.001, 95% CI 3.96–257.54)

Conclusions: Treatment of acute ischemic stroke by intravenous rt-PA in this study has good outcome and similar complications as compared with previous studies.

(J Thai Stroke Soc 2015; 14 (3_suppl_1): S5–S6.)

Keywords: Intravenous thrombolysis, acute ischemic stroke, outcome, Northeastern of Thailand

Outcome of allocating topographic involvement in ASPECT in acute ischemic stroke patients: MRI brain study

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Abstract

Background: This study aims

- 1) To determine factors associated with prognosis in patients presenting with acute ischemic stroke in the MCA territory.
- 2) To identify relationship of ASPECT application in term of topographic areas in MRI and disability outcome and hemorrhagic transformation.

Method: Patients presented with acute (within 24 hours) ischemic stroke complicating from the middle cerebral artery distribution admitted in Phramongkutklao hospital during January, 2014 to March, 2015 were reviewed. All cases underwent MRI brain and ASPECT was manually applied. Demographic data, imaging findings in individual ASPECT locations, mRS at 3 months, and were collected.

Results: Among 60 patients, mean age was 67.7 years (30–96), 63.3% were male and dyslipidemia was the most prevalent comorbidity affecting 60% of patients. The initial symptom in majority of patients was hemiparesis of 61.7%, mean NIHSS was 5.93 (range 0–15), and 34 patients had poor prognosis (mRS 2–6) at 3 months. Interestingly, poor prognostic factors were rTPA infusion in 15 patients (25%, $p = 0.006$) and hemorrhagic transformation ($p=0.019$). ASPECT lesions at Rt caudate (13.3%, $p = 0.035$), Rt lentiform (26.7%, $p < 0.01$), Rt internal capsule (26.7%, $p = 0.049$), Rt M1 (10%, $p = 0.027$), Rt M4 (13.3%, $p = 0.007$), Lt M3 (10%, $p = 0.027$), Lt M5 (16.7%, $p = 0.036$), and Lt M6 (13.3%, $p = 0.035$) were associated with poor prognosis (mRS 2–6). M3 MCA stenosis in 8 patients was related to poorer outcome (13.8%, $p = 0.036$). Hemorrhagic transformation was observed in 21.7% of cases and significantly correlated to factors including cardiovascular diseases ($p = 0.010$), rTPA ($p = 0.007$), proximal MCA stenosis, and Lt hemispheric lesion including M2, M3, M4, M5, M6, and insular area.

Conclusions: ASPECT locations significantly correlated with poor prognosis (mRS 2–6 at 3 months) in acute ischemic stroke in affected middle cerebral artery include Rt caudate, Rt lentiform, Rt internal capsule, Rt M1, Rt M4, Lt M3, Lt M5, and Lt M6. The other factors in which significantly associate with poor outcome were hemorrhagic transformation and MCA3 stenosis.

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Development of Specialty Competencies for Stroke Nurses

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Abstract

This study is Research and Development. The objective of this research was to develop stroke competencies for stroke registered nurses by using semi-structured Delphi technique, the data was collected from 30 stroke expertise nurses by following concepts of National Health Society; Stroke Core and Specializing Competencies Toolkit (SCoT) for Registered Nurses. The data was collected during July 2013 – January 2014. The reviews of the specialty registered nurses competencies criteria and planned for revising, then developed new competencies of the specialty registered nurses. Afterward, distributed of a preparing document to registered nurses (Practical Level) was performed at Prasat Neurological Institute and the results were discussed. A four instruments were used in this study consists of 1) the interview semi-construction form to collect a specialty registered nurses competencies in providing nursing care for stroke patient in the first time of data collection, 2) The opinion instrument in a five rating scales for expertise estimated a trend of important of specialty registered nurses in providing nursing care for stroke patient in the second time of data collection, 3) The opinion instrument in a five rating scales for expertise to confirm an important trend value of specialty registered nurses in providing care for stroke patient in the third time of data collection, 4) The opinion instrument in a five rating scales to evaluate the opinion of practical registered nurses concerning of potential specialty registered nurses competencies in providing nursing care for stroke patient and analyzing for reliability of questionnaire by using Cronbach's alpha coefficient was .9834

The results showed the specialty registered nurses competencies in providing nursing care of stroke patient for expertise they are given an important in 9 items (from 85 items, very high correlation is 55 items and high correlation is 30 items), the median is 3.98 – 4.91, the interquartile range is .07 – 1.20, it is showed very high correlation in 8 aspects were 1) knowledge of the disease, 2) emergency management and evaluation capability, 3) thrombolytic agents administration, 4) nursing care for evaluation and management after pass through a critical period, 5) continuing and discharge planning nursing care, 6) co-operation and

communication, 7) leadership, 8) nursing technology and knowledge transformation, and one item with high correlation was research and nursing development and then given to a registered nurses (Practical level) for opinion evaluation, the result showed very high agree is 4.30 out of 5.00 (87.2%), S.D. is .53. The suggestions of this study are the result can apply in a competency evaluation for registered nurses in providing nursing care for stroke patient in critical period both ischemic and hemorrhagic stroke in Prasat Neurological Institute and networks throughout Thailand. (*J Thai Stroke Soc* 2015; 14 (3_suppl_1): S8-S9.)

Keywords: Competencies, Stroke Nurses

