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Development of Status Epilepticus Fast Track

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Background: Status epilepticus (SE) is a neurological emergency and life-threatening condition leading to high morbidity and mortality rate that requires early diagnosis and prompt medical management. The objective of this study to analysed the system of care of SE patients including development and implement of SE fast track.

Materials and Methods: We reviewed data of adult SE patients admitted in the year 2017 in Srinagarind Hospital. SE patients were diagnosed and searched based on ICD 10 (G41) from the database. We performed for three phase follow by 1) Situation analysis system of care 2) Development the guideline of SE fast track 3) Implement the guideline of SE fast track.

Results: There were 35 case SE patients. The average age was 59.8 years and 18 patients were males (51.4%), 17 patient were female (48.6%). Type of SE ; generalized tonic- clonic status epilepticus (GCSE) 15 case (42.8%), GCSE + non convulsive status epilepticus (NCSE) 12 case (34.3%) and NCSE 8 case (22.9%). Situation analysis system of care of status epilepticus patients, we found that delayed of treatment cause by delayed diagnosis and delayed received intravenous antiepileptic drugs (AEDs); average time to diagnosis = 155.7 min and average time to treatment = 41.74 min. Development the guideline of SE fast track follow by 1) Developing the system of consultation by consult neurologist immediately 2) Developing the system of intravenous AEDs SE Box consist of 4 drugs; Phenytoin, Phenobarbital, Sodium valproate, and Levetiracetam encloses with all drug information sheets to reduce the waiting time and improve effectiveness of SE treatment. 3) Early diagnosis by perform electroencephalography (EEG) available all time. Implement the guideline of status epilepticus fast track in area of intensive critical care, medicine department and emergency department for improve outcome of treatment.

Conclusions: Development of SE fast track will reduce time to diagnosis and time to treatment leading to decrease mortality rate and morbidity in SE patient.

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Structural findings in patients with pharmacoresistant temporal epilepsy after anterior temporal lobectomy with a history of status epilepticus

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Background: Status epilepticus (SE) is the most severe complication in patients with pharmacoresistant epilepsy. The study of neurophysiological and structural-morphological changes of the brain in patients operated on for temporal epilepsy and with epileptic status in history is an urgent task.

Methods: All patients had a confirmed diagnosis of epilepsy in accordance with the classification of the International Antiepileptic League (ILAE, 2017), based on a combination of clinical, electro-neurophysiological and neuroradiological studies. The presence of SE in the history of some patients was taken into account in accordance with the new classification of the epileptic status ILAE 2015.

Results: In total, 63 patients with pharmacoresistant temporal epilepsy aged 19 to 52 years were examined and operated on. Tonic-clonic status epilepticus was found in 8 patients in history.

In all cases, histological examination of tissues removed during the operation was performed. In some cases, electron microscopy was also performed.

Among 8 patients with a history of tonic-clonic status epilepticus, various histological changes in the removed brain tissue were found. Focal cortical dysplasia (FCD) detected in 2 patients. In 3 cases, mesial temporal sclerosis (MTS) occurred.

Changes in glia in epileptogenesis foci deserved special attention. All 8 patients with a history of status epilepticus had a very mild astrocytic reaction with the presence of demyelination foci in the cortex and subcortex.

In contrast, in patients without a history of status epilepticus, glial reactions were very pronounced.

According to our data, pronounced gliosis of the white matter of the temporal lobe was characteristic of those patients in whom epilepsy proceeded along a lighter clinical type, without status epilepticus and without serial seizures.

Conclusions: Based on the research we have carried out, we have put forward an innovative hypothesis: gliosis in the epileptogenesis foci is a protective, adaptive response. Gliosis in this case is not a pathological reaction, but on the contrary, it is part of sanogenesis.

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Non-convulsive status epilepticus in acute alcoholic poisoning

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Background: The purpose of the study was to determine the feasibility of developing an non-convulsive status epilepticus (NCSE) in severe alcoholic coma.

Methods: 46 patients (age 19-48 years) with severe ethanol poisoning were examined. The diagnosis was confirmed by a