

# Traffic Accident in I-San Epileptics

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## Introduction

Epilepsy is well-known to have detrimental effects on quality of life. Patients with epilepsy endure driving restrictions, and they are risk to seizure related traffic accidents. There is no law of driving restriction in Thailand. Therefore, most of epileptics are often drive.

## Objective

We evaluated the prevalence of traffic accidents in North-East Thailand.

## Methods

Physicians jointly completed a questionnaire with consecutive patients in 5 hospitals (Srinagarind hospital, Nakhon Ratchasima hospital, Surin hospital, Udon Thani hospital and Ubon Ratchathane hospital). The collected data comprised demographics, types of seizures, causes, driving or no driving, frequency of driving, types of vehicle, aim of driving, seizure attack while driving, and history of traffic accidents were caused by seizure attack.

## Objective

There were 508 patients, including male 269(53%), female 239(47%), mean age 34 years. Type of seizures and causes were showed in Table 1.

Table 1. Type of seizures and causes

	Number (%)
Type of seizures	
Partial seizures	192 (37.8)
- Simple partial seizure	19 (3.7)
- Complex partial seizure	90 (17.7)
- Secondary GTC	108 (21.2)
Generalized seizures	307 (60.3)
- GTC	136 (26.7)
Aura	75 (14.8)
Causes	
Primary	341 (67.3)
Secondary	166 (32.7)
- Cysticercosis	30 (18.1)
- Hippocampal sclerosis	17 (10.2)
- Head injury	40 (24.1)
- Brain tumor	7 (4.2)
- CVA	14 (18.4)

Approximately 63.6% of patients had a driving before epilepsy was diagnosed. They mostly drove motor cycle (70.2%). During the period of study 68.8% of them had a driving, whereas 75.2% of patients had a driving license. About 26.0% of epileptic had at least one attack during them were driving motor vehicle. Interestingly, 65 patients (20.3%) had seizure-related crashes during the past 12 months. However, 276 patients (56.4%)

plan to obtain a new driving license and will intentionally not inform their history of epilepsy to doctors. The details of driving were showed in Table 2.

Table 2. Details of driving

	Number (%)
Driving prior diagnosed	318 (63.6)
Driving after diagnosed	333 (68.8)
Type of vehicle	
- Car	22
- Truck	7
- Bus	9
- Motor cycle	233
Frequency of driving	
- Everyday	227 (73.2)
- 1-3 days/week	62 (20.0)
- 4-6 days/week	21 (6.8)
Traffic accident due to seizures	65 (20.3)
Self injured only	47 (73.4)
Other injured persons	6 (9.4)
Death	0
Objective of driving	
- Working	131 (39.3)
- Study	30 (9.0)
- Shopping	147 (44.1)

## Discussion

I-San epileptics had a driving about 70%. This proportion was high and 20.3% of them occurred traffic accidents. Approximately 64% of patients drove a vehicle before epilepsy was diagnosed, and interestingly, most of them still drove a vehicle after the diagnosis of epilepsy was made. Because, there is no law of driving restriction in Thailand.

## Conclusion

Seizure-related crashes are common in I-San epileptics. Education on traffic accidents in epileptics should be campaigned.

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