

Epilepsy and the Law - A View from Thailand

Chaichon Locharemkul MD*

* Chulalongkorn Comprehensive Epilepsy Program (CCEP) under the Patronage of HRH Princess Chulabhorn, Division of Neurology, Department of Medicine, Faculty of Medicine, Chulalongkorn University

Background: Patients with epilepsy often suffer social injustice in many societies.

Objective: This is a review of current laws dealing with epilepsy and the consequences of this complex disease.

Material and Method: The author looked at reported unjust legal and social acts resulting from epileptic seizures and their results.

Results: The author found that accusation of criminal acts, accidents while driving, and job loss are relatively common experiences for epileptics. Such events reflect lack of public understanding. There is inadequate legislation to protect epileptics. Most disturbing areas are ictal behavior misinterpreted as crime, driving while experiencing a seizure, and social discrimination. There is no law dealing with epilepsy in Thailand while considerable progress in this field has been made in Western countries.

Conclusion: Epilepsy patients are inadequately protected by Thai law. There is an urgent need for education and campaigns for their rights focused on the public, the legal profession, and the health care professionals.

Keywords: Epilepsy, Seizure, Law, Justice, Seizure-related behavior, Crime, Driving, Social discrimination, Thailand

J Med Assoc Thai 2007; 90 (3): 587-98

Full text. e-Journal: <http://www.medassocthai.org/journal>

Epileptic seizures result from excessive uncontrolled electrical discharges by cortical neurons⁽¹⁾. Due to variable manifestations and unpredictable time of occurrence, attacks frequently puzzle and frighten witnesses. Less understood is the fact that long-term effects of recurrent seizures harms health, results in serious social stigma, and has a crippling economic consequences. Unfortunately, many health care professionals fail to adequately appreciate these important factors.

Many officials treat epilepsy patients superficially and with superstition instead of with care and compassion, even if they have experience. Unless a judge or police officer has an epileptic relative or friend, he is unlikely to understand the manifestations and consequences of this common disease⁽²⁾.

Correspondence to : Locharemkul C, Chulalongkorn Comprehensive Epilepsy Program (CCEP), Division of Neurology, Department of Medicine, Faculty of Medicine, Chulalongkorn University, Bangkok 10330, Thailand. E-mail: chaichon@yahoo.com

What judicial officers need to know about epilepsy

An epileptic seizure occurs suddenly, when cortical neurons fire abnormal electrical impulses in excessive amounts from the entire brain simultaneously (generalized seizure) or from a region of the brain spreading to other areas (focal or partial seizure)^(3,4). More than half of the patients remember having warning feelings (auras) that herald the unconscious phase⁽⁵⁾. However, only very few patients can mentally suppress their upcoming seizure, or can prevent subsequent injuries as a result of the convulsion or fall. Although most seizures occur spontaneously, certain internal or environmental factors can provoke attacks. Among the most commonly reported precipitating factors are sleep deprivation, emotional stress, menstruation, physical exhaustion, hot or cold weather, and alcohol consumption. Flickering lights can also bring on seizures in some victims⁽⁶⁾.

During a strong focal seizure, consciousness is impaired (so-called "complex partial seizure" by International League Against Epilepsy, 1981, and "dyscognitive seizure" by ILAE task force, 2001)^(3,4). The

altered cognitive levels may range from a dreamy state during which the patient is aware of surroundings, to complete loss of cognitive functions. Totally disrupted consciousness is observed during generalized tonic clonic seizures (GTC) and usually lapses into the recovery phase after the convulsions stop. The duration of post ictal confusion can vary from less than one minute to several hours.

Seizure manifestations (or ictal semiology) have been extensively classified using long-term closed circuit video EEG recordings. During seizures, patients may behave differently due to varying patterns of electrical propagation in their brains. However, some epileptics tend to show the same pattern of behavior and seizure⁽³⁾.

Common motor manifestations are stiffening (tonic seizure), repetitive jerks (clonic seizure), and automatic movements (automatism) of body and limbs. Automatism is a strange appearing phenomenon found in focal seizure during cognitive impairment. Automatism includes involuntary purposeless movements that are more or less coordinated in the course of or after an epileptic seizure⁽⁷⁾. They can mimic normal activities such as chewing, spitting, screaming, speaking, fumbling, and wandering or can be a continuation of an ongoing activity. Patients can sometimes interact with the environment during which the person is unaware of what is happening and cannot remember it later⁽⁷⁾.

Seizures arising from temporal lobe epilepsy (TLE) have the most bizarre character. The auras of epigastric sensation and fear are typical for mesial TLE; while complex auditory and visual perceptions are common in TLE of lateral (neocortical) origin⁽⁸⁾. Oral and hand automatisms occur early in temporal lobe seizures⁽⁹⁾. Impaired consciousness can appear solely as a blank stare with maintained tone and posture⁽¹⁰⁾. The semiology makes temporal lobe seizures the most frequently unrecognized or misinterpreted types; even when encountered by medical personnel.

Frontal lobe seizures tend to start with prominent motor signs (so-called convulsions) such as clonic limb movement, contortions of head and neck, asymmetrical tonic limb posturing and early GTC⁽¹¹⁾. They are easily recognized even by layman as an epileptic attack.

Most epileptic seizures end within 2-3 minutes except for unusually prolonged post ictal confusion or continuing seizures (status epilepticus)⁽¹⁾. The existence of an epileptic seizure can be evidenced by characteristic behavior revealed on video viewed by experienced

epileptologists plus electrical seizure patterns recorded on an electroencephalogram (EEG). When the seizure and post ictal state is over, the patient will resume normal behavior that has no relation with the manifestation during the attack⁽¹²⁾.

A seizure can create many forms of jeopardy for the patient. The nature and unpredictability of the occurrence makes the individual prone to have attacks anywhere and anytime. Impairment of cognition compromises the patient's appropriate interaction with other people. Strange manifestations such as an empty gaze, fumbling or incomprehensible mumbling can be misunderstood, ranging from calling for attention, conversion hysteria, being drunk, or drug abuse to frank psychosis⁽¹³⁾. Automatism during and after seizures, while the patient's brain is being disturbed by electrical overloads, can be easily interpreted as insanity. Hypermotor movements, screaming and limb gestures during a seizure can appear violent⁽¹²⁾.

Seizure related automotor movements might suggest criminal behavior⁽¹²⁾. Wandering purposelessly into other people's houses can mimic trespassing. Aimlessly touching nearby persons may look like an indecent gesture. Unconsciously picking up things may be interpreted as shoplifting. Undressing oneself, commonly seen after a seizure, may be considered obscene behavior.

Inappropriate first aid can turn into violent combativeness between the resisting patient and the rescuer. This "resistive violence" mostly occurs during or after a complex partial seizure. An attempt to restrain a confused patient commonly produces violent reactive automatism for which the patient is totally amnesic⁽¹²⁾. The patient's aggressive gesture may provoke aggressive responses by curious onlookers or police, resulting in bodily injury. The patient, who is usually calm and mild in nature when having no seizures, can be accused of harming officers, being unjustly charged with that crime, and jailed. After being in custody, deprived of antiepileptic medications and severely stressed, further seizures may appear.

Seizure-related behavior

Case report 1 - A lady who was accused of committing larceny

A 36-year old female university student with long standing refractory epilepsy was sitting in a watch shop inside a busy shopping arcade in Bangkok waiting for her watch to be repaired. Suddenly, her consciousness "turned off" and her usual epileptic attack happened. She awakened later, finding herself bound

with nylon strings on her wrists and ankles, lying on the floor and being beaten by a young guard and a policeman. It took her several minutes to struggle out of her post ictal confusion in an effort to communicate with them. She cried out desperately with pain and wondered why she was restrained. Among people crowded around her was an old man, the owner of the watch shop, who finally asked the policeman to untie her. He witnessed the entire event, and he told her that, while waiting, she suddenly left his shop for the opposite cloth booth where she picked up some cloth and, without paying, walked away without a word.

It was then that she realized she had experienced a seizure. Picking up things was her usual automatism associated with attacks. During such automatic movements, it appeared to others as if she was shoplifting. Her awareness and behavior were completely disturbed by on-going electrical discharges in her brain. During that episode, she struggled with her captors who bound her hands and feet.

In the attempt to explain her epilepsy, she showed the police several hospital ID cards describing her treatments. Her story was confirmed by phone by two nurses from two different hospitals. Eventually the restraints were removed and the weeping woman was released. Her seizures have been intractable to many antiepileptic medications despite seeking help at many hospitals.

(Note: She was later seen at the epilepsy clinic, Chulalongkorn Comprehensive Epilepsy Program (CCEP). Her medically intractable epilepsy was evaluated and she was found to be a candidate for surgery, which ultimately resulted in marked improvement.)

Case report 2 - A man who sat on a police motorcycle

A 30-year old man with 12-year history of TLE had a seizure on a street in Bangkok. During his post ictal confusion, he wandered around and ended up mounting a parked police motorcycle. His consciousness was still impaired when an officer approached him, and arrested him. After fully recovering from his seizure, he told police about his epilepsy but was not believed. He spent the night in jail while police verified the cause of his strange behavior, then released him.

Discussion

Using medical terminology, Fenton defined epileptic automatism as: *“a state of clouding of consciousness which occurs during or immediately after a seizure during which the individual retains control*

of posture and muscle tone, but performs simple or complex movements without being aware of what is happening. The degree of impairment of awareness varies. A variety of initial phenomenon before the interruption of consciousness and the onset of automatic behavior may occur”⁽¹⁴⁾. These two innocent patients experienced unjust treatment instead of protection during their unconscious automatism.

On the other hand, it is generally agreed among neurologists and epileptologists that well-organized, purposeful, complicated or goal directed behavior is highly unlikely as a seizure-related event⁽¹⁵⁾. To prevent the use of epileptic seizure as defense for a crime, 5 criteria for diagnosis of peri-ictal violence were suggested by 18 epileptologists at the international workshop on aggression and epilepsy⁽¹⁶⁾:

1. The diagnosis of epilepsy should be established by at least one neurologist with experience in epilepsy.

2. The presence of epileptic automatism should be documented by history and CCTV-EEG.

3. The presence of aggression during epileptic automatism should be verified in a video recorded seizure in which ictal epileptiform patterns are also recorded on the electro-encephalogram.

4. The aggressive or violent act should be characteristic of the patient's habitual seizures as elicited in history.

5. A clinical judgment should be made by the neurologist attesting to the possibility that the act was part of a seizure.

Other criteria for the physician-expert to substantiate the diagnosis of epileptic automatism as a cause and exclude a crime include⁽¹⁷⁾:

1. The act should not have occurred during the patient's first seizure in life. The patient is subject to ictal or post ictal automatisms as part of a previous diagnosis of epilepsy.

2. The act should be out of character for the individual's usual behavior and inappropriate for the circumstances.

3. There must be no evidence of premeditation or concealment. An epileptic automatism must arise *de novo* from ongoing behavior without pre-planning for the act.

4. Any disorder of consciousness should be reported by witnesses, if they are available. Features of automatism should be described such as a staring gaze, a blank look, stereotyped movements, confusion, and evidence that the person was out of touch with his or her surroundings.

5. During an automatism, memory of the act must be impaired. Loss of memory should start at the onset of seizures, not antedating the event.

6. Automatism is a clinical diagnosis. It is important to note that none of the usual investigations, such as focal MRI lesion or focal EEG discharges, makes a diagnosis of epilepsy. This diagnosis of automatism on clinical grounds alone should be done before entering court⁽¹⁸⁾.

Ictal violence is rare. This was revealed by a study of 5,400 seizures recorded on CCTV-EEG monitoring^(16,19). Only 7 exhibited ictal aggression ranging from violence toward property to mild aggression directed toward a person. Inter-ictal violence has never been found in several studies of temporal lobe epilepsy patients⁽²⁰⁻²²⁾. A number of studies have shown that epilepsy is 2-4 fold more prevalent in prison populations than in a normal middle class population⁽²³⁾. A relationship between low socio-economic status and epilepsy would explain a higher incidence of epilepsy among criminals. There was, however, no evidence to show that crime was related to the occurrence of an epileptic seizure⁽¹²⁾.

Driving

Case report 3 - An epileptic driver

A 27-year old male with rare epileptic attacks had a breakthrough GTC while driving. He never missed his medications but sleep deprivation combined with psychological stress precipitated the attack. His vehicle collided with another car. There were no significant injuries, but the two vehicles were badly damaged. He had to compensate the owner of the other car. He was already in debt and the new stress brought on more seizures. His career as a merchandise distributor ended since his driving license was suspended.

Discussion

Seizure attacks occurring while driving can cause serious accidents and injuries to the driver as well as to innocent bystanders. Epilepsy usually means a temporary ban of driving. Epileptics are often reported as having a higher risk for accidents⁽²⁴⁾. One study, nevertheless, found that the number of accidents due to seizures appeared to be small, approximately 0.02%, less than one-third of those caused by natural death at the wheel⁽²⁵⁾. Although car accident rates related to seizures appeared to be infrequent, the serious consequences from them usually result in suspension of driving licenses.

Social discrimination

Case report 4 - A man with job loss and divorce

A 29-year old male with TLE had been working as a laborer for a soft drink company for 3 years. Unknown to his employers, he had occasional seizures at work. However, he managed to control his epilepsy quite well with regular medications and an optimal lifestyle. He received many awards for his good work record.

Unfortunately, one day during a stressful meeting with high-level company administrators, he had an epileptic seizure. He was then mercilessly fired without appeal. He asked for help from his neurologist but the doctor's testimonial of his good compliance with medical recommendations did not help.

After a few months of unemployment, his wife divorced him leaving a 7 year-old mentally retarded child in his custody. These events worsened his seizures. Depression eventually converted this formerly well-controlled epileptic to a medically refractory and unemployable case.

(Note: The patient was subsequently evaluated by a team of epilepsy experts at CCEP who found him to be a good surgical candidate for resection of the epileptogenic scar in the temporal lobe (hippocampal sclerosis, HS). Standard anterior temporal resection with amygdalo-hippocampectomy has rendered him seizure free. He has regained self sufficient employment status.)

Discussion

Epileptics are often more handicapped by people's attitude against them than by their disease^(26,27). This case demonstrates discrimination against people with epilepsy and the need for judicial support to assure quality of life.

The American Epilepsy Foundation reported to the nation that the unemployment rate for people with epilepsy is 25%. Among people whose seizures are poorly controlled, the unemployment rate approaches 50%⁽²⁸⁾. This fact may not reflect the limited capability of work due to seizure disorders but rather implies the prejudicial attitude in the workplace against epileptic employees.

In a British, community-based study, the number of unemployed epileptics correlated strongly with seizure severity. Lower educational achievement and misunderstanding of epilepsy in the workplace contribute to the unemployment of epileptics⁽²⁹⁾.

Some employers fear that epileptics may be injured by machinery although there is no evidence

supporting those concerns⁽³⁰⁾. Risch has reported that no special safety modifications are necessary for machinery in the work settings of epileptics⁽³¹⁾. Many fear that epileptic employees may cause damage to the merchandise or may take extra-leave because of the illness. Actually, accident rates due to seizures during work are very low. A study comparing workers compensation cases over a 13-year period in New York showed that seizure-related accidents were only half of those caused by coughing or sneezing⁽³²⁾. The actual time loss due to seizures during work was found to be only 1 hour for every thousand work hours in epileptics⁽³¹⁾. Most studies have also demonstrated that attendance and performance records of epileptic employees were better than those of the general working population⁽³³⁾. The authors of surveys in the US and in England concluded that employment discrimination in adults with epilepsy was not as severe as previously expected^(34,35). However, it is uncertain whether these findings can be applied to the work situation in developing countries where accommodation for epileptic employees is much less applied⁽²⁷⁾.

Certain jobs are closed for epileptics, namely piloting aircraft, driving public conveyances and working at unprotected heights, close to fire or dangerous machinery. In Thailand, military service is closed to persons with GTC. Unfortunately, epileptics are often discharged or suspended when employers discover their disease despite preexisting efficiency, achievement, and positive work attitude.

The marital status of epileptics is usually unstable. In Ireland, marriage rates among epileptic outpatients are only half of those in the general population⁽³⁶⁾. Desertion or divorce is common.

Epilepsy can have a life long impact on the patient's quality of life in other aspects. Children with frequent seizures inevitably miss school, receive poorer grades, and rarely accomplish optimal educational goals. In the UK, school failures were found in one-thirds of intellectually normal children with epilepsy, and special educational support was required⁽³⁶⁾. Psychiatric support and attitudes of teachers play a major role in the education of epileptic children.

Moreover, school and social activities are limited. Swimming and out-door sports are often automatically prohibited. Epileptic children often lose joyful activities during childhood. They may become friendless and seclusive. Negative attitudes of parents can further contribute to chronic depression and suicide.

These social consequences of epilepsy, al-

though rarely addressed, deserve special official attention and remedial policies.

Epilepsy and law

If people with epilepsy are to be protected by laws, what issues need to be addressed? One of the most important aspects regarding epilepsy and the law must be the issue of ictal and post ictal behavior mimicking crime or violence. Other important aspects must be the operation of motor vehicles and social discrimination against epileptics, particularly in schools and the workplace. The identification of people with epilepsy whenever necessary and the right of the patients to receive qualified epilepsy care are among others to be mentioned. These issues are summarized in Table 1.

Current laws regarding epilepsy

Developed countries have laws that expand the rights of people with epilepsy. There are many variations in such laws from country to country, which are beyond the scope of this report. Such laws are still lacking in most developing countries. Such laws are still lacking in most developing countries.

Seizure related behavior mimicking crime or violence

a) Available laws in Thailand:

Few judicial officials have much comprehension of epilepsy. There has been no legislation specifically regarding epilepsy in Thailand.

One can only improvise in a case such as example 1 and 2 by the application of available laws that protect the acts of persons who are mentally impaired or have inadequate cognitive function, i.e. the psychotic and mentally retarded.

The Criminal Code protecting mentally-ill individuals provided in *Section 65: Whenever any person commits an offense at the time when not being able to appreciate the nature, or illegality of his act or not being able to control himself on account of a defective mind, mental disease or mental infirmity, such person shall not be punished for such an offence.*

But, if the offender is still partially able to appreciate the nature or illegality of his act, or is still partially able to control himself, such a person shall be punished for such an offence, but the Court may inflict less punishment to any extent than that provided by the law for such an offence.

During a severe epileptic attack, the patient's brain is being disturbed by electrical overloads and the control of consciousness is impaired. The patient

Table 1. Main areas of epilepsy and law interface

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- Seizure related behavior
 - Unusual motor behaviors appearing under a state of impaired consciousness during or immediately after a seizure can be confused with crimes.
 - The phenomena should be acknowledged as an illness that needs proper rescue, sensible interaction and medical care by well-trained personnel at an appropriate time. It should be correctly differentiated from an intentionally committed crime or malingering as well as other medical conditions such as alcohol and drug abuse. The victim should have the right to declare oneself as an epileptic patient in a convincing way but with confidentiality to avoid unfair conviction and imprisonment. If the act is recognized promptly as seizure related behavior; the patient can also be protected from physical and mental injuries.
 - Any act should be reliably proven to be such a seizure related behavior to avoid misuse by a criminal.

 - Driving
 - Prohibition of driving and license restriction for uncontrolled epileptic patients must be provided by laws. On the other hand, the license should be re-issued, preferably temporarily, to a well controlled case that is free of seizure for a specific period of time. Medical supervision and appropriate type of vehicles allowed for epileptic drivers should be stressed.

 - Social discrimination
 - a. Education
 - Continuous and special educational programs as well as school accommodation must be available for epileptic children as well as adults by legislation.
 - b. Employment
 - Epileptic persons should have the right to be employed in appropriate work environ that must not worsen their epilepsy nor risk their safety. Their work abilities must be evaluated without prejudice. The employers should work closely and continuously with experienced medical personnel to accommodate each epileptic regarding the suitable work situation.
 - c. Marital issue
 - Epileptic individuals should be protected by appropriate laws against unfair divorce and desertion. The issue of child custody should also be thoroughly considered.

 - Identification of epilepsy
 - Epileptic persons should have the right to identify themselves as patients in a reliable and appropriate way but with confidentiality.

 - Right to qualified epilepsy care
 - Epileptics should have access to the medical service that provides standard epilepsy care and updated information. The patient should retain the right in pursuing to the best epilepsy care available. Intractable cases should be properly and timely referred to a qualified tertiary epilepsy center if needed.
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temporarily enters the state of “not being able to appreciate the nature or illegality of his act or not being able to control himself”. Section 65 of the Criminal Code may then be applicable to such a person.

Another Section in The Criminal Code that may be applicable for epileptics is *Section 59: A person shall be criminally liable only when such a person commits an act intentionally, except in the case where the law provides that such a person must be liable when such a person commits an act by negligence, or except in the case where the law clearly provides that such a person must be liable even though such a person commits an act unintentionally.*

To act intentionally is to act consciously and at the same time the person desired or could have foreseen the effect of such doing.

If a person does not know the facts constituting the elements of the offence, it cannot be deemed that the doer desired or could have foreseen the effect of such doing.

To commit an act by negligence is to commit an offence unintentionally but without exercising such care as might be expected from a person under such condition and circumstances could exercise such care did not do so sufficiently.

An act shall also include any consequence

brought about by the omission to perform an act, which must be done in order to prevent such a consequence.

An epileptic automatism can thus be considered as an unintentional act since the person does not desire or cannot have foreseen the effect of such act and therefore can be legally protected from inappropriate punishment.

b) Laws about ictal behavior and criminal violence in other countries:

An American law on criminal liability, published in 1962 and later endorsed in 1966, stated that “*a person is not responsible for a criminal conduct if at the time of such conduct as a result of mental disease or defect he lacks substantial capacity either to appreciate the criminality [wrongfulness] of his conduct or to conform his conduct to the requirements of law*”. However, the Section does not directly mention the acts during impaired consciousness from epileptic seizures. Therefore, it is inherent that the person who was found “not guilty by reason of insanity” to be institutionalized for treatment of madness, which is obviously inapplicable for an epilepsy case.

In the US, there have been many instances in which persons having seizures have been arrested and charged with such crimes as intoxication and disorderly conduct, resisting arrest, unlawful trespass, or assault on a police officer. In 2006, the Epilepsy Foundation (EF) brought this serious problem to the attention of the House of Representative Judiciary Committee during hearings on the “Americans with Disability Act (ADA)”. The committee’s final statement stresses the need of proper training for police officers to prevent such inappropriate punishment for persons who have epilepsy⁽³⁷⁾.

In British courts, two types of automatism are mentioned: non-insane (*automatism simpliciter*) and insane (*automatism due to disease of the mind*)⁽¹⁴⁾. Either of the automatism defenses will result in a finding of “not guilty”. In the case of non-insane automatism, the defendant is acquitted and free to walk from the court while in the case of insane automatism, the attendant would have been committed to a mental hospital for a period of time. Unfortunately, the British courts have rejected that an epileptic’s automatism should be considered a non-insane automatism. The legal concept that an epileptic’s automatism is an insane automatism was firmly established in British law in 1961 and has created a legal paradox for epileptic persons. This concept is currently considered for amendments⁽³⁸⁾.

However, the distinction between sane and insane automatism is arbitrary and makes little medical sense. Although the legal and medical definitions of automatism are quite different, the doctors and the lawyers agree that during an automatism, the patient’s consciousness is impaired.

Driving

a) Available laws in Thailand:

There have been no laws or regulations regarding driving and epilepsy in Thailand. According to the *Criminal code, Section 59*, an epileptic who drives despite the knowledge of his or her epilepsy and its nature of unpredictable occurrence (as in example 3), should be considered as having committed an act of negligence since he or she does not exercise sufficient care expected from an epileptic person. Subsequent casualties should be the full responsibility of the epileptic driver according to the Civil Code. However, the Court may inflict less punishment than that provided by the Criminal Code because of the inability to control oneself by the driver. It is time that more specific laws regarding epilepsy and driving are formulated in Thailand. A more defined regulation of driver license qualifications for epileptic drivers may be one starting strategy to prevent seizures related accidents and loss of life and limb.

b) Law about driving and epilepsy in other countries:

Regulations in most countries have recently moved from being completely prohibitive to being more permissive. This is the result of increased understanding of epilepsy and improvement of epilepsy care. There are variations among countries in the world or among states in the US.

Legal criteria on epilepsy and driving in some countries are summarized in Table 2. A generally accepted concept is that an epileptic driver should have a long continuous period of complete seizure freedom before a temporary driving license is issued. Details of these laws and regulations are modified by seizure characteristics such as seizure types (solitary or recurrent, provoked or non-provoked, presence or absence of aura, loss or retention of consciousness, focal or generalized), time of occurrence (nocturnal or daytime) and underlying causes (uncertain cause, tumor, after craniotomy, etc.), age of epilepsy onset, EEG and medical supervision. These factors have influenced differences in the legislation. Reporting epilepsy to the authorities of a driving license applicant is another issue that varies from not-required to mandatory

Table 2. Summary of international criteria regarding epilepsy and driving

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- a) Time for granting a temporary license after having a seizure: The complete seizure-free period varies from 6 months (most states in the US), 1 year to 3 or 5 years worldwide. A person with a single seizure or seizure only during sleep faces less restriction for licensure.
 - b) Duration of temporary licensing: The duration of temporary license varies from 6 months to 2 years in most countries.
 - c) Allowance of commercial driving: Driving of buses, taxis, heavy goods vehicles, ambulances or fire engines, which cause more stress than ordinary driving, are not permitted for epileptics in most countries.
 - d) Time when all driving is prohibited: This period of complete prohibition is not stated by many countries or varies from 6 months to 2 years.
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reporting. They range from mandating physicians to report to requiring self-reporting by the patient^(37,39,40).

Social discrimination

a) Available laws in Thailand:

There have been no laws on employment, education, and marriage for a person with epilepsy in Thailand. However, for a mentally handicapped person, divorce by a spouse can be legally permitted only if the person has had the illness longer than 3 years. The right to employment is also preserved for a physically handicapped person in Thailand but is difficult to enforce. Laws protecting social discrimination of people with epilepsy are needed today when education and employment are essential for a good quality of life. An epileptic (as in case 4) should have legal support at work with the employer's accommodation. Such a person should also be legally protected from an unfair divorce.

b) Laws about discrimination in other countries:

The United States of America has come a long way in restoring the rights of people with epilepsy. *The federal Rehabilitation Act of 1973* recognizes that people with seizure disorders are "disabled" under the law, although there has been a question as to whether epilepsy is considered a disability. This law prohibits several forms of discrimination all of which are pertinent to persons with epilepsy (*the Americas Disabilities Act, ADA*)⁽⁴¹⁾.

Education

Most children with epilepsy can participate in activities with other students in the classroom. *The Individuals with Disabilities Education Act (IDEA)* grants children with epilepsy the right to receive additional services required by some children, such as being able to take medication during school hours, and if necessary, special education. *Section 504 of the Reha-*

ilitation Act of 1973 prohibits schools that receive federal funding from discriminating against a child because of disability in academic and nonacademic activities, such as school field trips and extracurricular activities. The law also requires schools to provide a child who is otherwise qualified to participate in the particular activity with a reasonable accommodation⁽⁴²⁾.

For post-secondary education, federal laws and many state laws prohibit colleges, universities and other post-secondary programs from discriminating against an individual because of his or her disability (*Section 504 and the ADA*)⁽⁴³⁾.

Employment

In America, *the ADA and the Family and Medical Leave Act (FMLA)* protects people with epilepsy who may need to miss work because of seizures, changes in medication or regular doctor visits so they do not fear job loss. The FMLA allows qualified employees to take up to 12 weeks of unpaid leave during a 12 month period for medical reasons⁽⁴⁴⁾.

In the UK, an employer has a duty to try and accommodate an employee with epilepsy when possible⁽³⁶⁾.

Marriage and child custody

Generally, there is no medical reason for a person with epilepsy to remain unmarried. However, in some Asian countries such as India, there was a law in 1976 stating that a person, subject to recurrent attacks of insanity or epilepsy, cannot have a legally valid marriage or such marriage can be declared null and void. This law was later amended to restore the legal rights to people with epilepsy according to the litigation filed by the Indian Epilepsy Association in 1999 (*known as the Marriage Law Amendment Act 1999*)⁽⁴¹⁾.

In the US, progress has been made for patients with disabilities who are being awarded custody of their children. There is no evidence that

observing a parent's seizure is bad for a child. An article reports that children, who are dealt with openly about their parent's condition and who are prepared for the possibility of a seizure, are able to deal with the event better than children from whom this information has been withheld⁽⁴⁵⁾.

Public Accommodation

Federal laws in the US also provide rules for public accommodations for persons with disabilities (*Title III of the ADA*). Business and nonprofit service providers are covered by this law to offer accommodations for certain types of courses and examinations, transportation, at commercial facilities and other public services such as restaurants, rental stores, hotels, movie theaters, private schools, convention centers, doctors' office, depots, zoo, funeral home, daycare centers and recreation facilities including sports stadiums and fitness clubs. If a person has been denied services or entrance to a public program because of epilepsy, he or she can file a complaint or seek mediation through the United States Department of Justice, or file a lawsuit⁽⁴⁶⁾.

Current moves on "Law for Epilepsy" in Thailand

The Chulalongkorn Comprehensive Epilepsy Program (CCEP) organized a national academic congress in October 2005 at the Chulabhorn Research Institute (CRI) convention center in Bangkok to commemorate the 48th Birthday Anniversary of HRH Princess Chulabhorn Mahidol, the patron of the CCEP (Princess Epilepsy Congress 2005). The issue of "Epilepsy and the Law in Thailand" was, for the first time,

brought to the attention of the audience at a discussion panel by medical and judicial professionals. This congress started the first campaign for the rights of epilepsy patients.

Late in April 2006, a popular public television program has brought the issue to public attention. Two famous lawyers, an epileptologist and a master of ceremonies—with a volunteer epileptic victim as the complainants were the presenters. The program was successful in stimulating a prompt response from the Director General of the Police Department of Thailand to support and protect epileptics by appropriate educational programs for police officers.

In July 2006, CCEP in cooperation with the National Health Security Office started an on-line epilepsy patient database program for comprehensive epilepsy care through local hospitals and designated referral epilepsy tertiary care center. This should create a fast tract to identify an epileptic individual and his medical and legal needs. There is now no longer a reason why most epilepsy sufferers in Thailand cannot be completely seizure-free with proper medical treatment. Referral for advanced presurgical evaluation and effective surgical techniques^(47,48) are being promoted nationwide with the collaboration of CCEP, the King Chulalongkorn Memorial Hospital, the National Health Security Office and the Ministry of Public Health through a long-term program.

Future goals

• Education

Officials in the judicial system should have

Table 3. Tips: What epilepsy people can do to prevent injustice and jeopardy

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1. Be prepared for medical identification whenever necessary
Easily and timely identification of epilepsy should be available to all patients. Hospital documents such as ID card, epilepsy booklet, seizure calendar, and appointment slip should always be with the epileptic. Relatives and caretakers should also carry epilepsy identification items for patients especially children and mentally handicapped. Appropriate confirmation should be done by hospital contact through related epilepsy personnel and hospital systems.
 2. Prevent seizure whenever possible
The patients should avoid events that can bring on seizures. Compliance to medications and good self care must be assured. Risky activities should be avoided especially when epilepsy is not under good control.
 3. Avoid driving
Uncontrolled epileptics must avoid driving a motor vehicle unless the seizures are completely controlled for at least 6 months and they are under close medical supervision.
 4. Pursue to the best epilepsy care
The patient with epilepsy should be under regular medical care. He or she should seek the best epilepsy care available for correct diagnosis and treatment. Epilepsy specialists are mandatory for complicated cases and in the interface with the law. Medically refractory patients should be seen by epilepsy experts in a tertiary epilepsy center for evaluation and relevant surgical therapy with the goal of complete seizure freedom.
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adequate information about seizures and epilepsy. Relevant knowledge of laws must be made known to medical personnel, patients, and families of epileptics. Patients and their family members should be encouraged to express their legal problems so that laws can be changed and formulated. Tips for epilepsy patients to protect themselves from injustice and other jeopardy are listed in Table 3.

The education of police officers in the prompt recognition and appropriate first aid of epileptic seizures must be required so that people with epilepsy can be properly protected.

• **Legislation directly related to epilepsy**

There is an urgent need for judicial and medical professionals, other government and volunteer sectors and the public to cooperate in revising and providing laws directly related to epilepsy in the above areas of concerns.

• **Epilepsy identification**

Epileptics should be properly and promptly identified whenever needed. At the same time, medical information should be handled by authorized persons so that the patients' confidentiality is preserved.

There is a need for discussion on whether to consider a person who has been cured from epilepsy by good medical or surgical care still as an "epileptic person" for the rest of their life. This is a controversial issue as it may conflict between the person's chance to become a normal member of society, free of legal restrictions and the person's privilege of being continuously protected by the law⁽⁴⁹⁾.

Conclusion

The chance of an epileptic being unfairly treated because of seizures can be reduced by proper education and legislation. Although the process is in the initial stage in Thailand, it is anticipated that with the cooperation of the medical and judicial professionals, the public, and the patients and their families, the rights and well-being of epileptics can be restored and protected. Surgical therapy can provide many patients complete freedom from epileptic seizures, and is an exciting strategy for the future.

Acknowledgement

The author wishes to thank Professor Ukrit Mongkolnavin, Pramarn Luangwattanawanich and Wanchai Sornsiri for their discussions and comments on the issue of "Epilepsy and the Law in Thailand".

The author also thanks the Unit of Research Affairs of the Faculty of Medicine, Chulalongkorn University for help in editing this manuscript and James V. Pettit for his editorial suggestions.

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โรคลมชักกับกฎหมายในประเทศไทย

ชัยชน ไชว์เจริญกุล

ภูมิหลัง: ผู้ป่วยโรคลมชัก ประสบกับความไม่เป็นธรรมทางกฎหมายเนื่องจากอาการชัก

วัตถุประสงค์และวิธีการ: รายงานผู้ป่วยที่ถูกกล่าวหาและรับโทษจากการกระทำโดยไม่รู้ตัวขณะชัก 2 ราย ชักขณะขับรถยนต์ 1 ราย และตกงานเนื่องจากชักในที่ทำงาน 1 ราย ทบทวนวารสารปัญหาความไม่เป็นธรรมจากโรคลมชัก และทบทวนกฎหมายเกี่ยวกับโรคลมชักในประเทศไทยและประเทศอื่น

ผลการศึกษา: กรณีที่เกิดขึ้นชี้ว่า ความเข้าใจและการคุ้มครองผู้ป่วยโรคลมชักตามกฎหมายยังไม่เพียงพอ กรณีที่สำคัญ ได้แก่ อาการชักที่ผู้อื่นเข้าใจว่าจงใจกระทำผิด ชักขณะขับรถ และการเลือกปฏิบัติในสังคมปัจจุบัน ประเทศไทยยังไม่มีกฎหมายเกี่ยวกับโรคลมชักโดยตรง

สรุป: ผู้ป่วยโรคลมชักในประเทศไทยยังไม่ได้รับการคุ้มครองตามกฎหมายในหลายกรณี ในอนาคตจำเป็นต้องเผยแพร่ความรู้ความเข้าใจแก่บุคลากรที่เกี่ยวข้อง และมีกฎหมายคุ้มครองผู้ป่วยโรคลมชักโดยตรง
