

# Epilepsy: A Case Study Comparing Western and Traditional Chinese Treatment Procedures

## Abstract

Epilepsy is the world's most common neurological disease<sup>1</sup>. Western medicine treats epilepsy primarily with medication and, infrequently, surgery. Traditional Chinese medicine uses a combination of acupuncture and herbal formulas. A case study describes the successful treatment of a 24-year-old woman by traditional Chinese medicine (TCM).

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## Introduction

Throughout the centuries, in different cultures, certain superstitions grew up regarding epilepsy. The ancient Greeks for example, called epilepsy the sacred disease, and even in Martin Luther's time epilepsy was referred to as a demonic illness. In the Middle Ages and into the modern era, the common belief was that devils and ghosts were responsible for epilepsy. According to the Talmud, one of the holy books of Judaism, epilepsy was regarded as a disease of (demonic) possession. It was only at the end of the 19<sup>th</sup> century, when western medicine began to provide neurological clues as to the disease process, that prejudices against epilepsy gradually began to recede.

## Part One: Epilepsy as understood by Western medicine

### Definition of epilepsy<sup>2</sup>

Epilepsy is a brain disorder marked by electrical disturbances in brain wave frequency which result in seizure.

### Varieties of epilepsy<sup>3</sup>

Seizures are classified as either generalised or partial and may be primary (idiopathic) or secondary. Where the electrical disturbances are spread throughout the entire brain the disease is called general epilepsy; when they are restricted to a particular area of the brain it is called partial or focal epilepsy.

### Primary (idiopathic) epilepsy

In this case the cause of the seizures is unknown and there is no indication of previous brain damage. In about five to ten percent of cases there is a genetic basis. Even an electroencephalogram (EEG) may not provide a clear-cut indication that a problem exists.<sup>4</sup>

There are two major types of idiopathic epilepsy:

### *Tonic-clonic (grand mal)*<sup>5</sup>

In the tonic phase of the seizure, breathing stops due to contractions of the air passages, and in the clonic phase there are convulsions. The patient may vomit, and after regaining consciousness can experience such symptoms as headache, muscle pains and a desire to sleep. These seizures can vary as to frequency and length. This type of epilepsy usually begins between the ages of four and 20 years and often ceases naturally as the patient gets older. Seizures, which begin after 25 years of age, are generally of the secondary variety.

### *Absence (petit mal)*<sup>6</sup>

These seizures are very brief, lasting only five to ten seconds. During this time the patient is unresponsive and immobile although there may be tremors of the eyelids or shoulders. This particular seizure returns several times daily, and after the seizure the patient has no conscious recollection of what happened. This type of epilepsy usually ceases naturally.

### *Secondary epilepsy*<sup>7</sup>

This type of epilepsy results from damage to the brain cortex and may be due to viral infections, tumours, foreign objects, metabolic disease such as hypoglycaemia, anorexia nervosa, calcium deficiency, genetic diseases, vascular accidents etc. Seizures can appear either days or years after the injury to the brain.

### Treatment<sup>8</sup>

Management of the symptoms is aimed at improving the patient's quality of life by reducing or eliminating seizures. Treatment can be drug based or involve a surgical procedure. Antiepileptics/anticonvulsants are generally efficient in treating most seizures, however side effects and toxicity can be a problem. Surgical procedures can be used for the prevention of

Name of drug	Type of seizures	Usual adult daily dose (mg/kg)	Optimal (Therapeutic) level of drug in the blood (g/ml)	Selected side effects
Phenytoin	Tonic-clonic, focal	4-8	10-20	Nystagmus, ataxia, dysarthria, sedation, confusion, etc.
Carbamazepine	Tonic-clonic, focal	5-25	4-8	Nystagmus, dysarthria, diplopia, ataxia, drowsiness, etc.
Valproic acid	Tonic-clonic, focal, absence	10-60	50-100	Nausea, vomiting, diarrhoea, drowsiness, alopecia, etc.
Phenobarbital	Tonic-clonic, focal	2-5	10-40	Drowsiness, nystagmus, ataxia, skin rashes, learning difficulties, etc.
Primidone	Tonic-clonic, focal	5-20	5-15	Sedation, nystagmus, ataxia, vertigo, nausea, etc.
Ethosuximide	Absence	20-35	40-100	Nausea, vomiting, anorexia, headache, lethargy, etc.
Clonazepam	Absence	0.05-0.2	20-80	Drowsiness, ataxia, irritability, behavioral changes, exacerbation of tonic-clonic seizures.

Table: Drug treatment.

seizures but this is only undertaken where the patient has not responded to conventional treatment and is considered to be at high risk. Surgery can involve partial removal of the temporal lobe or implantation of electrodes in the brain after the corpus callosum has been separated<sup>10</sup>.

**Drug Treatment<sup>9</sup>**  
**Summary**

The cause of epilepsy is unknown and not every patient can become seizure free with Western medical treatment. Many patients suffer additional problems due to the side effects of their medication.

**Part Two: epilepsy as understood by Chinese medicine<sup>11</sup>**

Epilepsy, known as Dian Xian, was identified in Chinese medical texts over 2000 years ago.

According to Xin-ming<sup>12</sup> epilepsy is due to a disruption of the Heart, Liver, Kidney and Spleen, with loss of consciousness due to blocking of the Heart orifices by internal phlegm.

Management of epilepsy is holistic; it not only aims to mitigate the acute disorder but also addresses the chronic underlying weakness.

Chinese medicine classifies epilepsy according to shi (excess) and xu (deficiency) patterns, rather than grand or petit mal. The two principal pathogenic factors are phlegm in the upper body which obstructs the Heart shen (spirit) and results in impairment of consciousness, and stirring of Liver wind which gives rise to seizures.

**Aetiology and pathogenesis<sup>13</sup>**

The major aetiological factors are:  
Liver wind and turbid phlegm obstructing the mind.  
Liver fire with phlegm heat.  
Liver and Kidney yin deficiency.  
Spleen and Stomach deficiency

**Differential diagnosis and treatment according to patterns<sup>14</sup>**

**Liver wind and turbid phlegm obstructing the mind**

*Clinical manifestations*

Before the seizure: dizziness, vertigo, stiffness of the neck, oppression in the chest, general malaise.

During the seizure: sudden collapse, locked jaw, upward staring eyes, convulsions, salivation, shouting, crying, loss of consciousness without convulsions, loose stool and urine. The tongue will have a thin (white or yellow) sticky coating and the pulse will be either rapid (shu) and slippery (hua) or tight (jin) and slippery.

*Pathology*

Liver wind stirs up internal phlegm causing it to rise upward and mist the Heart and mind. If this results in convulsions then Liver wind is predominant; if there is a loss of consciousness without convulsions, phlegm predominates over Liver wind.

*Treatment principle*

Extinguish wind and resolve phlegm, unblock the Heart orifices and strengthen the Spleen.

*Main acupuncture points*

Baihui DU-20, Renzhong DU-26, Jianshi P-5, Taichong LIV-3, Fengchi GB-20, Fenglong ST-40, Yaoqi (M-BW-29). Use reducing method and treat daily. Retain needles for 40 minutes to one hour.

Note: Yaoqi (M-BW-29) is located on the Governing vessel, two cun superior to the tip of the coccyx. The needle should first be inserted perpendicularly for 0.3 cun, then directed superiorly 2 to 2.5 cun, ideally inducing needle sensation to travel as far as the head.

*Main herbal formula*

Ding Xian Wan (Arrest Seizure Pill).

**Liver fire with phlegm heat***Clinical manifestations*

Mild or severe seizure, irritability, restlessness, insomnia, bitter taste in the mouth, thirst, difficult expectoration of yellow phlegm. The tongue will be red with a yellow coating and the pulse will be wiry (xian), rapid (shu) and slippery (hua).

*Pathology*

Heat from Liver fire condenses body fluids into phlegm, which then causes the phlegm to rise and block the Heart orifices.

*Treatment principle*

Purge Liver fire, resolve phlegm, unblock the Heart orifices.

*Main acupuncture points*

Renzhong DU-26, Laogong P-8, Xingjian LIV-2, Benshen GB-13, Fenglong ST-40, Shenmen HE-7, Yongquan KID-1. Use reducing method and treat daily. Retain needles for 40 minutes to one hour.

*Main herbal formulas*

Long Dan Xie Gan Tang (Drain the Liver Decoction) or Di Tan Tang (Scour Phlegm Decoction).

**Liver and Kidney yin deficiency***Clinical manifestations*

Mild seizures, insomnia, poor memory, pain and weakness of the lower back and knees, dizziness, constipation, vertigo. The tongue will be red with scanty coating or without coating and the pulse will be rapid (shu) and fine (xi).

*Pathology*

Liver and Kidney yin and jing deficiency lead both to Liver yang rising and to malnourishment of the mind. The hyperactivity of Liver yang ascends to disturb the mind and generates wind leading to an epileptic seizure.

*Treatment principle*

Nourish Liver and Kidney yin, subdue Liver yang and calm the mind.

*Main acupuncture points*

Baihui DU-20, Ganshu BL-18, Shenshu BL-23, Jinsuo DU-8, Tongli HE-5, Yanglingquan GB-34, Jiuwei REN-15, Taixi KID-3, Sanyinjiao SP-6, Yaoqi (M-BW-29). Use even method and treat daily. Retain needles for 30 minutes.

*Main herbal formulas*

Zuo Gui Wan (Restore The Left (Kidney) Pill) or Tian Ma Gou Teng Yin (Gastrodia And Uncaria Decoction).

**Spleen and Stomach deficiency***Clinical manifestations*

Prolonged history of mild or severe seizures, lassitude, poor memory, low appetite, nausea, yellow and lustreless complexion, loose stools, fatigue, thin body to the point of fragility, vertigo and dizziness. The tongue will be pale and the pulse will be soft (ruan) and fine (xi) or soft and weak (xu).

*Pathology*

Qi and blood production are reduced due to weakness of the Spleen and Stomach. Spleen deficiency leads to the production of phlegm. The mind is not nourished as the clear qi is unable to rise due to phlegm accumulation and lack of qi and blood.

*Treatment principle*

Strengthen the Spleen, harmonise the Stomach, resolve phlegm and increase qi production in order to nourish Heart blood.

*Main acupuncture points*

Baihui DU-20, Xinshu BL-15, Juque REN-14, Zhongwan REN-12, Zusanli ST-36, Qihai REN-6, Daling P-7, Fenglong ST-40, Taichong LIV-3, Pishu BL-20. Use even or reinforcing method. Treat daily or every other day. Retain needles for 30 minutes.

*Main herbal formula*

Liu Jun Zi Tang (Six Gentleman Decoction).

**Case study****Introduction**

The patient was a 24-year-old female with a history of epileptic seizures from the age of 13.

*Main clinical manifestations*

The epileptic seizures were of the tonic-clonic type and included the following symptoms: blurred vision that led to dizziness, shouting, collapse and loss of consciousness, convulsions, salivation and incontinence of urine. The

seizures lasted from one to ten minutes. Following the seizure she would go to sleep for 48 hours, waking up a few times in order to vomit. The seizures were not regular, however in the summertime and during periods of mental stress they became more frequent.

An EEG showed abnormal brain activity. The patient was treated with carbamazepine (Timonil Retard) 1 tablet 3 times daily, with some improvement.

*Other symptoms and signs:*

Pale complexion, restlessness, thinness to the point of fragility, loose stools with foul odour, premenstrual tension with pain in the lower abdomen and the lower back, menstrual blood containing clots, irregular eating habits and hunger during the night, poor memory and slightly confused and disorganised thinking.

*Tongue:* trembling and red with a thin yellow coating, toothmarks.

*Pulse:* rapid (shu), weak (xu), wiry (xian), fine (xi) and slippery (hua).

*Diagnosis*

Liver fire with phlegm heat, Spleen and Stomach deficiency.

*Pathogenesis*

Spleen and Stomach deficiency gives rise to accumulation of phlegm. Liver fire generates Liver wind causing it to stir up the phlegm, which blocks the Heart orifices and disturbs the mind.

*Treatment principle*

The treatment was divided into three stages:

1. Purge Liver fire, resolve phlegm and unblock the Heart orifices.
2. Strengthen the Spleen, harmonise the Stomach and resolve phlegm.
3. Strengthen Liver and Kidney yin.

**Treatment**

**Stage 1**

*Main acupuncture points*

Xingjian LIV-2, Fenglong ST-40, Yanglingquan GB-34, Sanyinjiao SP-6, Fengchi GB-20, Jianshi P-5.

*Main herbal formulas*

Long Dan Xie Gan Tang (Drain the Liver Decoction) with Di Tan Tang (Scour Phlegm Decoction).

*Results*

This stage of treatment was continued for three months, during which time treatments were given once a week. Over these three months there were two

seizures - both relatively mild - after which the patient felt very tired and slept for 12 hours without waking up to vomit. She felt less stressed, and had less premenstrual pain and better bowel movements.

After three months the tongue had become pale with a white greasy coating and the pulse was rapid (shu), weak (xu), slippery (hua) and slightly wiry (xian).

**Stage 2**

*Main acupuncture points*

Zusanli ST-36, Fenglong ST-40, Yanglingquan GB-34, Sanyinjiao SP-6, Daling P-7, Zhongwan REN-12.

*Main herbal formulas*

Liu Jun Zi Tang (Six Gentlemen Decoction) with Tian Ma Gou Teng Yin (Gastrodia And Uncaria Decoction).

*Results*

This stage of treatment was carried out for five months, during which time treatments were given once a week. Over these five months there was one seizure. The patient's general feeling became better, her memory improved and her thinking became more organised. At this stage, after consulting with her neurologist, she began gradually reducing her medication, carbamazepine (Timonil Retard), at the rate of a quarter of a pill every month.

After five months the tongue had become pale-red with a fine white coating and the pulse was rapid (shu), slightly weak (xu) and slightly slippery (hua).

**Stage 3**

*Main acupuncture points*

Zusanli ST-36, Fenglong ST-40, Yanglingquan GB-34, Sanyinjiao SP-6, Zhongwan REN-12, Pishu BL-20, Shenshu BL-23, Taixi KID-3.

*Main herbal formulas*

Liu Jun Zi Tang (Six Gentleman Decoction) with Zuo Gui Wan (Restore The Left (Kidney) Pill).

*Results*

This stage of treatment was carried out for eight months, during which time treatments were given once every other week. Over these eight months there were no seizures and the patient's general feeling was good. An EEG showed normal brain wave activity.

A follow-up four years later revealed that the patient was seizure-free and had not been taking any medication. Her memory, thought processes and cognitive functions were almost back to normal.

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- 2 Lavar p346, Lerman pp12-13.
- 3 Lavar p347, Lerman pp50-59, 68-69.
- 4 Lavar p348, Lerman pp32-34.
- 5 Lavar p347, Lerman pp52-53.
- 6 Lavar p347, Lerman pp68-69.
- 7 Lavar pp346-347, Lerman pp68-69.
- 8 Lavar pp348-349, Lerman pp153-175.
- 9 Drug table is modified and reproduced from Aminoff p802, Lavar p34, Lerman pp169-170.
- 10 Lavar p350, Lerman pp177-179.
- 11 Xin-ming p9, Scott p119, Conghu & Lishan p44.
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