Post Stroke Scalp Acupuncture
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The joy is in the struggle, the effort, the suffering of the fighting, not in victory.
Mahatma Gandhi.

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Acknowledgements

Special thanks to my wife, daughter, and my family who have contributed with support, and confidence during the preparation of this work research for post stroke treatment which is oriented to use acupuncture in the scalp. My biggest inspiration comes from the fourth most reliable practitioners who are considered the top in the world for Traditional Chinese Medicine in the field of neurovascular diseases including in that wind stroke, this particular research is oriented to identify the best for scalp acupuncture.
Key Terms

**Scalp Acupuncture**: treatment procedures applying needles based on head map related with motor and sensory brain activities.

**Stroke**: A condition triggered by a bleeding and or blockage in the blood vessel with a block or clot preventing blood supply to any part of the brain causing sudden symptoms mostly involved with sensory and motor activities it could be massive both hemispheres or only one side of the brain.

**Acupuncture Therapy**: treatment of several physical, physiological pathologies using applying needles in the body based on channels, or meridians related with body organs.

**Acupuncture-Moxibustion Therapy**: combined treatment using in addition of acupuncture the heating of the areas were needles are placed.

**Cerebrovascular Disorders**: Pathologies caused by deficiency or excess of blood supply to the body organs. Traditional Chinese Medicine: Ancient healing system based on The Theory of Ying-Yang, The Theory of the Five Elements and The Theory of the Qi.

**Protocol**: Standard procedure generated to provide a therapy for certain medical conditions, protocols are normally developed by a scientific group of practitioners who identify procedures and select the best of those procedures and establish a standard protocol for the medical condition under the research study.

**Standard**: a rule or principle that is used as a basis for judgment.

**Aphasia**: A condition in which language function is disordered or absent because of an injury to certain areas of the cerebral cortex.

**Dysphasia**: A condition in which language function is disordered or absent because of an injury to certain areas of the cerebral cortex.

**Hemiparesis**: Muscle numbness or weakness on one side of the body.

**Hemiplegia**: Paralysis of one side of the body.
I. Abstract

From a Traditional Chinese Medicine theory perspective, stroke is related to the Liver, Spleen and Kidney systems. The predisposing factors for stroke may take years to develop and are often the result of emotional and physical strain, overwork, poor diet and lack of relaxation. These lifestyle habits deplete the body of vitality which often leads to an accumulation of Phlegm and or Wind. Over time these internal factors of phlegm and wind build to varying degrees and may culminate in a stroke.

In the case of wind stroke, Chinese medicine plays both a preventative and a rehabilitative role. In its prevention role, Chinese medicine is used to treat many of the common risk factors for stroke, such as hypertension and diabetes. In its rehabilitative role, Chinese medicine is used to treat the effects of stroke. Accordingly, Chinese medicine is useful for side effects such as paralysis, speech issues, muscle weakness and flaccidity.

Phlegm is the result of the Spleen being weakened by a poor diet and or physical-mental strain. An accumulation of Phlegm disrupts the smooth flow of Qi within the body and may result in symptoms such as poor concentration-muddled thinking, and or numbness of the limbs. Over time this Phlegm will stagnate and transform into Phlegm-heat which may rise to the head and ultimately cause a stroke.

Wind is often the result of emotional and mental strain coupled with a lack of relaxation and poor dietary habits. Too much stress in life can deplete the Yin of both the Kidneys and the Liver which can lead to Wind rising up and causing a stroke or symptoms such as high blood pressure, headaches, emotional issues, etc.

The treatment theories for stroke are divided into two main categories - those that effect the muscles and or channels (generally mild) and those that affect the internal organs (more serious). The internal channel differentiations are further subdivided into a general deficiency pattern or an excess one. In clinical practice, patients will often have a mix of deficiency and excess symptoms. Additionally, as patients with more severe strokes move into the rehabilitation stage they will be treated according to the muscle and or channels differentiations which deal with the side effects of a stroke. This research will identify and provide references for post stroke treatments using scalp acupuncture.
II. Objective:
The objective of this research is to evaluate the effect of scalp acupuncture therapy on function of cerebral sensory and motor function in post-stroke patients. The view and analysis of existing scalp acupuncture treatments is a support to the World Health Organization (WHO) to standardize acupuncture nomenclature and it will probably serve as a head of process to establish as a mandated standard protocol mostly related with Integrative or Complementary Medicine oriented to establish controlled clinical trials which will include also scalp acupuncture therapy. The current literature and available documentation will bring a view to strengthening and promoting the appropriate use of scalp acupuncture in the health care systems throughout the world. Information on the therapeutic mechanisms of scalp acupuncture will be possible incorporated.

Since the methodology of clinical research on acupuncture is still under debate, it is very difficult to evaluate acupuncture practice by any generally accepted measure. This research is limited to the review of documentation and also from national and international investigative reports from the media networks such as BBC, NBC, including with that the follow up of the work from the 4th most recognized practitioners for this discipline. They are Dr. Jiao Shunfa, Dr. Zhu Ming Qing, and Dr. Shi Xue Min (Chinese origin) and Dr. Toshikatsu Yamamoto (Japanese origin). They all are using scalp acupuncture to treat post stroke patients. Some of their experiences were published in International journals, independent publishers, movies and video documentaries; all in the hope that the conclusions will prove that scalp acupuncture is more acceptable, then the scalp acupuncture will be a growing treatment benefits for those patients who are suffering stroke consequences. That I hope will be a standard accepted and generally practiced treatment protocol.

With this research I will compare and evaluate the effect of scalp acupuncture using two existing versions or schools for therapy in post-stroke patients through the application of scalp acupuncture and parameters before and after the therapy. Those schools are the Chinese which is very ancient and had a general theory which are the pillars of Chinese Medicine such as: The Theory of Ying-Yang, The Theory of the Five Elements and The Theory of the Qi. These I quote are a reference obtained from the “Book of Changes” Yi Jing. C 700 BC:

“The theories of acupuncture may be traced back to the spring and autumn Period and Warring States Period (770-221 B.C.) and an integral theoretical system had been developed at that time, as evidenced in the Internal Canon of the Yellow Emperor. In this ancient medical classic, fairly detailed descriptions can be found of the discovery of the
meridian system, which is of vital importance to human life, and the peculiar invention of acupuncture that can cure many generalized diseases by localized stimulation.

III. Theory of TCM for Wind Stroke

The Wind Stroke include organ stroke and meridian stroke, the organs stroke include liver and heart fire up, and kidney yin deficiency with kidney yang fire floating up. The liver and heart fire up will leading the Qi and blood going up, fire can make body liquid become phlegm cover brain's energy channel cause stroke. The kidney yin deficiency to empty, cannot hold kidney yang fire energy, cause empty heat floating on face, but limbs are cold, body suddenly lose energy source become stroke. The meridian stroke on face also called Bell's palsy, it is wind cold disturb the face meridians cause Qi and blood stagnation. The other meridian stroke is half body cannot move regular, it is come from the organ stroke the liver wind phlegm cover the body meridians.

Wind stroke refers to a disorder manifested by sudden loss of consciousness with unilateral weakness, numbness, paralysis and dysphasia, or to a disorder manifested by sudden onset of unilateral paralysis and facial paralysis without experiencing unconsciousness. Because of its sudden and acute onset, multiple symptoms and rapid alterations in manifestations, and the onset of sudden fall and contractions are similar to the natural characteristics of wind, which is moving, migrating, and changing rapidly. Stroke, with the above characteristics, is therefore given the name wind-stroke in Chinese medicine.

Table 1. Wind Stroke
IV. Stroke and or Wind Stroke Incidence and Mortality

Stroke (Wind Stroke) is the fourth cause of death in USA, the first cause of death in China, and Second cause of death worldwide. It may cause severe disabilities such as paralysis and aphasia in 50%-90% sufferers and bring about heavy burden for both the society and families. Despite the progress in pre-clinical and clinical medicine in the last decades, the incidence, disability rate and mortality remain high.

*Cerebral disease (such as stroke, cerebral hemorrhage) is one of the tenth main diseases endangering human health. Clinical studies of acupuncture as an adjunct to cerebral diseases rehabilitation have been encouraging, although its mechanisms are speculative. Here, the author try to compare and evaluate the effect of scalp acupuncture using forth existing versions of therapy in post-stroke patients through the application of scalp acupuncture and parameters before and after the therapy.

Scalp acupuncture is not really a single system, but a multiplicity of systems still in development, with a 30-year history of practical experience. A standard of nomenclature for acupuncture points has been developed and proposed by a scientific group sponsored study by the World Health Organization (WHO), indicating 14 therapeutic lines or zones based on a combination of the thoughts of the different schools of scalp acupuncture. However, it is
often necessary to carefully review the zones relied upon by an individual practitioner, as few have adopted the unified pattern.

Acupuncture is done on a daily basis in China. Uncertain as to whether daily acupuncture is essential, even in Western countries, some acupuncturists with experience in treating stroke with acupuncture believe treatment 3 times a week is optimal. Several different approaches have been used to treat stroke, demonstrating that acupuncture for this disorder remains a healthcare art: Traditional Chinese Yang meridian point therapy, Chinese scalp acupuncture.

V. The Etiology and Pathogenesis

1) Invasion of exterior wind:

Improper Diet:

could impair the Spleen's ability to transform and transport; such impairment causes generation of phlegm, which can cover the Heart orifice or obstruct the flow of the channels. Corresponding manifestations include loss of consciousness or hemiplegia and aphasia.

2) The Emotional Stress:

Excessive emotional stimulations affect both the Heart and the Liver. When disturbed by intense emotional stresses, Heart fire explosively flares upward whereas hyperactive Liver Yang would generate Liver wind. Mutually aggravating each other, Heart fire and Liver wind will further cause Qi Blood to ascend rush upwards to the brain. Sudden loss of consciousness would result.

3) Prolonged Exhaustion:

Due to aging, chronic illness, excessive exertion and weak constitution can cause Liver and kidney Yin deficiency below with Liver Yang rising. This is a complicated condition of deficiency below with excess above. In this condition the Qi and the Blood rebel upward following Liver Yang rising. Moreover, phlegm may follow and ascend upwards to obstruct the flow in the channels or cover the clear orifices.

VI. Identification of Patterns based on TCM and the ancient theory of Yin and Yang, the Five Elements, and the theory of the Qi

a) Identification of Patterns According to the Eight Principles and or Patterns

1. Interior/Exterior
2. Hot/Cold
b) Identification of pathologies based on the Six Excesses

The Six Excesses or Pathogenic Factors* or the also known as the Six Evils and their characteristic clinical signs are:

1. **Wind**: rapid onset of symptoms, wandering location of symptoms, itching, nasal congestion, “floating” pulse; tremor, paralysis, convulsion.
2. **Cold**: cold sensations, aversion to cold, relief of symptoms by warmth, watery/clear excreta, severe pain, abdominal pain, contracture/hyper tonicity of muscles, (slimy) white tongue fur, deep-hidden or string-like pulse, or slow pulse.
3. **Fire/Heat**: aversion to heat, high fever, thirst, concentrated urine, red face, red tongue, yellow tongue, rapid pulse. Fire and heat are basically seen to be the same
4. **Dampness**: sensation of heaviness, sensation of fullness, symptoms of Spleen dysfunction, greasy tongue fur, slippery pulse.
5. **Dryness**: dry cough, dry mouth, dry throat, dry lips, nosebleeds, dry skin, dry stools.
6. **Summer heat**: either heat or mixed damp-heat symptoms.

*Six-Excesses-patterns can consist of only one or a combination of Excesses (e.g., wind-cold, wind-damp-heat). They can also transform from one into another.

VII. Pattern Differentiation

1. **Exterior Wind Invading into the Unsolicited Channels**

   Sudden weakness and numbness of the extremities, facial paralysis, slurred speech, drooling or hemiplegia

   **Symptoms**: Aversion to wind, fever, soreness and pain in the joints

   **Tongue**: Thin, white coat

   **Pulse**: Floating and rapid

   **Treatment Strategy**: Dispel wind, nourish the Blood and unblock the channels

   **Herbs Formula**: Da Qin Jiao Tang

   **Herbs Modifications**:

   Obstruction of phlegm dampness or blood-stasis with unresolved numbness of the extremities and facial paralysis:

   Plus Dan Shen, Ji Xue Teng, Bai Jie Ze, Bai Fu Zi

   Accompanied with exterior wind-heat: plus Sang Ye, Ju Hua, Bo He
2. Wind Yang Disturbing Upwards with Liver and Kidney Yin Deficiency

Sudden occurrence of facial paralysis, slurred speech or aphasia, numbness and heavy sensation of the extremities and hemiplegia

**Symptoms:** Dizziness, headache, vertigo and tinnitus, dream-disturbed sleep, soreness and weakness of the lower back and knees, dry throat, constipation and scanty dark urine

**Tongue:** Red tongue with scanty or greasy coat

**Pulse:** Wiry, thready and rapid, or wiry and slippery

**Treatment Strategy:** Nourish the Yin, subdue the Yang, extinguish wind and unblock the channels

**Herbs Formula:** Zhen Gan Xi Feng Tang

**Herbs Modifications:**
- Reinforce pacifying the Liver and extinguishing wind: plus Tian Ma, Gou Teng, Ju Hua
- Accompanied by Phlegm-heat: plus Dan Nan Xing, Zhu Li, Chuan Bei Mu
- Severe Headache: plus Ling Yang Jiao, Shi Jue Ming, Xia Ku Cao

3. Heat Type of Closed Disorder

Sudden loss of consciousness with locked jaws, clenched fists, rigid limbs, and fecal and urinary retention as well as red face and fever

**Symptoms:** Tachypnea, bad breath, excessive sputum or rattling sound in the throat, restlessness or agitation. Possible contractions and hiccoughs

**Tongue:** Red tongue with yellow greasy coat

**Pulse:** Wiry, slippery and forceful

**Treatment Strategy:** Clear heat from the Liver, extinguish wind and open the orifices

**Herbs Formula:** Zhi Bao Dan or An Gong Niu Huang Wan and Ling Jiao Gou Teng Tang

**Herbs Modifications:**
- Strengthen nourishing the Yin and subduing Yang: plus Gui Ban, Shi Jue Ming
- Excessive Phlegm: plus Zhu Li, Dan Nan Xing
- Contractions of the extremities: plus Quan Xie, Wu Gong, Jiang Can
- Bad Breath & Constipation: + Da Huang, Zhi Shi, Mang Xiao

4. Cold Type of Closed Disorder
Post Stroke Acupuncture

Sudden loss of consciousness with locked jaws, clenched fists, rigid limbs, and fecal and urinary retention as well as pale complexion and dark lips.

**Symptoms:** Quiet and still, cold extremities, distention and fullness in the abdomen, and excessive sputum

**Tongue:** White, greasy coat

**Pulse:** Deep, slippery and decelerating

**Treatment Strategy:** Resolve phlegm, extinguish wind and open the orifices

**Herbs Formula:** Su He Xiang Wang and Di Tan Tang

**Herbs Modifications:**

Strengthen effects of pacifying the Liver and extinguishing winds: plus Tian Ma, Gou Teng

5. **Abandon Disorder**

Sudden loss of consciousness with flaccid extremities, closed eyes, opened mouth, fecal and urinary incontinence

**Symptoms:** Shallow respirations, profuse sweating and clammy skin

**Tongue:** Flaccid Tongue

**Pulse:** Thready, weak or minute

**Treatment Strategy:** Augment the Qi, revive the Yang and consolidate the collapse

**Herbs Formula:** Shen Fu Tang and Sheng Mai San

**Herbs Modifications:**

Unremitting profuse sweating: plus Huang Qi, Long Gu, Mu Li, Shan Zhu Yu

6. **Hemiplegia Associated with Qi Deficiency and Blood Stasis**

Unilateral weakness, loss of sensory and motor coordination, fatigue and lassitude, numbness or edema of the extremities and facial paralysis

**Symptoms:** Sallow complexion, poor appetite, loose stool and slurred speech

**Tongue:** Dark purple tongue w/ petechiae and white coat

**Pulse:** Thready, choppy and weak

**Treatment Strategy:** Augment the Qi, invigorate the Blood and unblock the channels

**Herbs Formula:** Bu Yang Huan Wu Tang

**Herbs Modifications:**
Reinforce effects of invigorating the collaterals: plus Quan Xie, Chuan Niu Xi, Wu Shao She, Sang Zhi

Significant weakness of the lower extremities: plus Du Zhong, Sang Ji Sheng

Significant weakness of the upper extremities: plus Gui Zhi

Swelling of the affected extremities: plus Fu Ling, Ze Xie

7. **Hemiplegia Associated with Yin Deficiency and Yang Rising**

Unilateral contracture of the affected extremities, headache, and red flush on the face

**Symptoms:** Agitation, dizziness, tinnitus, dysphasia and numbness of the extremities

**Tongue:** Red tongue with thin yellow coat

**Pulse:** Wiry and forceful

**Treatment Strategy:** Nourish the Yin, subdue the Yang and unblock the collaterals

**Herbs Formula:** Tian Ma Gou Teng Yin

**Herbs Modifications:**
Reinforce effects of clearing heat & nourishing Yin: plus Sheng Di Huang, Bai Shao, Mai Men Dong

Relax the sinews & unblock the collaterals: plus Mu Gua, Shen Jin Cao

8. **Dysphasia associated with Wind-Phlegm Obstructing the Channels**

Rigid tongue and slurred speech, dysphagia, excessive sticky sputum that is difficult to expectorate

**Symptoms:** Dizziness, headache and loss of motor coordination or numbness of the extremities

**Tongue:** Dark tongue with greasy white or yellow greasy coat

**Pulse:** Wiry and Slippery

**Treatment Strategy:** Dispel Wind-Phlegm, disclose the orifices and unblock the channels

**Herbs Formula:** Jie Yu Dan

9. **Dysphasia associated with Kidney Essence Deficiency**

Weak and flaccid tongue with slurred speech, and soreness and weakness of the lower back and knees

**Symptoms:** Palpitations, dizziness and blurred vision, or fecal and urinary incontinence
**Tongue:** Thin small tongue with scanty coat

**Pulse:** Deep and Thready

**Treatment Strategy:** Nourish the Yin, Tonify the Kidney and open the orifices

**Herbs Formula:** Di Huang Yin Zi

**Herbs Modifications:**
- Preponderance of Yin Deficiency: remove Fu Zi, Rou Gui
- To improve Speech & open the orifice: plus Xing Ren, Jie Geng

10. **Facial Paralysis**
Includes the loss of motor and sensory coordination of facial muscles, inability to properly open and close the affected eye, inability to control the movement of the affected side of the mouth, and drooling

**Treatment Strategy:** Dispel wind, resolve phlegm & unblock the channels

**Herbs Formula:** Qian Zheng San

**Herbs Modifications:**
- Strengthen the effect of extinguishing wind: plus Tian Ma, Gou Teng, Shi Jue Ming
- Strengthen the effect of relaxing the sinews and unblocking the channels: plus Bai Shao, Mu Gua

**VIII. Acupuncture Treatment**

a. **Channel Involvement**

**Manipulation:** Even method on healthy side first, then affected side

**Prescription:**
GV-20, BL-7, GV-16

**Supplementary Points:**
- Paralysis of the Upper Limbs: plus LI-15, LI-11, SJ-5, LI-4
- Paralysis of the Lower Limbs: plus GB-30, ST-36, ST-41, GB-34
- Facial Paralysis: plus ST-4, ST-6, LI-4, ST-44

b. **Organ Involvement**

**Manipulation:** Reducing Method

**Prescription:**
GV-20, GV-26, ST-40, LV-3, KL-1, 12 Jing-Well Points
Supplementary Points:
Locked Jaws: plus ST-7, St-6, LI-4
Rigid Tongue and Aphasia: plus GV-15, CV-23, HT-5

c. Abandon Disorder

Manipulation: Moxa

Prescription:
CV-8, CV-6, CV-4

Modifications
Difficulty in Frowning and raising the eyebrow: BL-2, TW-23
Incomplete closing of the eye: plus BL-2, BL-1, GB-1, Yu Yao, SJ-23
Difficulty in sniffing: plus LI-20
Deviation of the philtrum: + GV-26
Inability to show the teeth: plus ST-3
Tinnitus & deafness: plus GB-2
Tenderness in the mastoid region: + GB-12, TW-5
Long standing cases: plus Tai yang, St-6, ST-4, ST-3, ST-7 (use warm-needle or moxa on all)

IX. Evaluation of TCM Prevalence and Acupuncture as a Healing Practice

Acupuncture is original from China which had recognized and documented history of practice with about two thousand seven hundred years old. It spread to other countries in Asia which includes Japan, the Korean peninsula and elsewhere in Asia. Acupuncture is widely used in health care systems in the countries of that region; it is officially recognized by those countries governments and well accepted and used by the general public. Acupuncture was brought to Europe during the early seventeenth century by the commerce and trade including with that the use of Chinese slaves as a workforce; skepticism exist since that time, and it is about its effectiveness, it continues to exist in countries where modern Western medicine is the core of health care, especially in those where acupuncture has not yet been widely practiced. Most persons question if that the acupuncture has a true therapeutic effect, or it works merely through the power of mental suggestion, or the enthusiasm of the patients who are wishing for a cure. There is therefore a need for scientific studies that evaluate the effectiveness of acupuncture under controlled clinical conditions.
X. Does acupuncture really work to help stroke victims improve?
Many studies involving thousands of patients have been published in China and Japan, and 2 of 3 studies from Scandinavia, demonstrated significant help. These studies indicate that patients get well faster, perform better in self-care, require less nursing and rehabilitation therapy, and use less healthcare dollars. However, since most studies come from China, they get little credence from the Western medical community because researchers in China do not appear to be published unless their results are highly positive, so publication bias is possible. And, no money has been made available in the United States for studies needed to confirm the claims of experts in China and Japan of indeed helping stroke patients. Such studies, if done well, demand significant funding; sources of such money are difficult to find. Most physicians, including rehabilitation experts, have appeared unwilling to consider acupuncture therapy, not due to bias but because the published studies do not necessarily meet research study criteria for the United States.

XI. Diseases and disorders that can be treated with acupuncture
The diseases or disorders for which acupuncture therapy has been tested in controlled clinical trials reported in the recent literature can be classified into four categories as shown below.

- **Head and face**
The use of acupuncture for treating chronic pain of the head and face has been studied extensively. For tension headache, migraine and other kinds of headache due to a variety of causes, acupuncture has performed favorably in trials comparing it with standard therapy, sham acupuncture, or mock transcutaneous electrical nerve stimulation (TENS). The results suggest that acupuncture could play a significant role in treating such conditions. Chronic facial pain, including cranio-mandibular disorders of muscular origin, also responds well to acupuncture treatments (28–31). The effect of acupuncture is comparable with that of stomatognathic treatments for temporomandibular joint pain and dysfunction. Acupuncture may be useful as complementary therapy for this condition, as the two treatments probably have a different basis of action (2, 32).

- **Locomotors system**
Chronically painful conditions of the locomotors system accompanied by restricted movements of the joints are often treated with acupuncture if surgical intervention is not necessary. Acupuncture not only alleviates pain, it also reduces muscle spasm, thereby increasing mobility. Joint damage often results from muscle malfunction, and
many patients complain of arthralgia before any 9 Acupuncture: review and analysis of controlled clinical trials changes are demonstrable by X-ray. In these cases, acupuncture may bring about a permanent cure.

- **Disorders of the sense organs**
  Deaf-mute children were once extensively treated with acupuncture in China, but no methodologically sound reports have ever shown that acupuncture therapy had any real effectiveness. A recent randomized controlled clinical trial on sudden-onset deafness in adults favored acupuncture treatment (218).
  Acupuncture might be useful in the treatment of Meniere disease for relieving symptoms and also for reducing the frequency of attacks. It seems to be more effective than conventional drug therapy (betahistine, nicotinic acid and vitamin B6) Tinnitus is often difficult to treat. Traditionally acupuncture has been believed to be effective for treating tinnitus, but only two randomized controlled clinical trials are available—with inconsistent results
  Unexplained ear ache that is neither primary (due to ear disease) nor secondary (as referred pain), is often regarded as a manifestation of psychogenic disturbances. Acupuncture has been shown to be effective in this kind of earache in a placebo-controlled trial.
  Acupuncture might be helpful in the treatment of simple epistaxis unassociated with generalized or local disease, but only one report of a randomized controlled clinical trial is available. This report indicates that auricular acupuncture provides a more satisfactory effect than conventional homeostatic medication.

- **Neurological disorders**
  In the neurological field, headaches, migraines and neuralgia are the common painful conditions treated with acupuncture. Strokes and their sequels are another major indication for acupuncture. Early treatment of paresis after stroke has proved highly effective.
  Because improvement in the effects of stroke also occurs naturally, there has been some doubt about the contribution of acupuncture. In recent years, however, a number of controlled clinical evaluations have been undertaken in stroke patients. For example, in randomized controlled studies, acupuncture treatment of hemiplegia due to cerebral infarction gave better results than conventional medication and physiotherapy. There were also beneficial effects when acupuncture was used as a complement to rehabilitation.
In one study, patients with ischemic cerebrovascular disease treated with acupuncture were compared with patients treated with conventional drugs. Nerve function, as evaluated by electroencephalographic map and somatosensory evoked potential, showed a much more marked improvement in the patients treated with acupuncture.

Comparative studies have shown acupuncture treatments to be as effective for treating hemiplegia due to cerebral hemorrhage as for that due to cerebral infarction. Since early treatment with physiotherapy is unsatisfactory, it is advisable to use acupuncture as the primary treatment. Even in hemiplegia of long duration, remarkable improvements can often be achieved. Hemiplegia due to other causes, such as brain surgery, can also be improved by acupuncture. Aphasia caused by acute cerebrovascular disorders can also be treated with acupuncture.

Peripheral nervous disorders are often treated with acupuncture. For example, good effects for Bell's palsy have been reported in randomized controlled trials. Facial spasm is another peripheral nervous disorder for which acupuncture treatment may be indicated. For this condition it has been shown that wrist–ankle acupuncture is significantly better than traditional body acupuncture.

Insomnia can also be treated successfully with acupuncture. In randomized control trials, both auricular acupressure and auricular acupuncture had a hypnotic effect.
XII. Progress and recognition of the scalp acupuncture
a) Report of a World Health Organization (WHO)

A Scientific Group Proposed a Standard International Scalp Acupuncture Nomenclature
the Scientific Group considered the scalp acupuncture lines (Fig. 1-5) as well as the
underlying functional zones of the brain (Fig. 6-7). It proposed the following nomenclature,
using the alphabetic code MS (derived from “micro-system” and “scalp point”).

Table 3

<table>
<thead>
<tr>
<th>English name and location</th>
<th>Pinyin name</th>
<th>Han character</th>
<th>Alphanumeric</th>
</tr>
</thead>
<tbody>
<tr>
<td>middle line of forehead 1 cun from GV24 straight down along the meridian</td>
<td>ézhongxiàn</td>
<td></td>
<td>MS1</td>
</tr>
<tr>
<td>lateral line 1 of forehead 1 cun from BL3 straight down along the meridian</td>
<td>épángxiàn I</td>
<td></td>
<td>MS2</td>
</tr>
<tr>
<td>lateral line 2 of forehead 1 cun from GB15 straight down along the meridian</td>
<td>épángxiàn II</td>
<td></td>
<td>MS3</td>
</tr>
<tr>
<td>lateral line 3 of forehead 1 cun from the point 0.75 cun medial to ST8 straight down</td>
<td>épángxiàn III</td>
<td></td>
<td>MS4</td>
</tr>
<tr>
<td>middle line of vertex from GV20 to GV21 along the midline of head</td>
<td>dingzhongxiàn</td>
<td></td>
<td>MS5</td>
</tr>
<tr>
<td>posterior oblique line of vertex-temporal from qíánsínhéncóng (one of the four acupuncture points collectively designated as Ex-HN1, 1 cun anterior to GV20) obliquely to GB6</td>
<td>dingniè qiánxiéxiàn</td>
<td></td>
<td>MS6</td>
</tr>
<tr>
<td>lateral line 1 of vertex 1.5 cun lateral to middle line of vertex, 1.5 cun from BL6 backward along the meridian</td>
<td>dingpángxiàn I</td>
<td></td>
<td>MS7</td>
</tr>
<tr>
<td>lateral line 2 of vertex 2.25 cun lateral to middle line of vertex, 1.5 cun from GB17 backward along the meridian</td>
<td>dingpángxiàn II</td>
<td></td>
<td>MS8</td>
</tr>
<tr>
<td>anterior temporal line from GB4 to GB6</td>
<td>nièqiánxiàn</td>
<td></td>
<td>MS9</td>
</tr>
<tr>
<td>posterior temporal line from GB8 to GB7</td>
<td>nièhòuxiàn</td>
<td></td>
<td>MS10</td>
</tr>
<tr>
<td>upper-middle line of occiput from GV18 to GV17</td>
<td>zhenshàng</td>
<td></td>
<td>MS11</td>
</tr>
<tr>
<td>upper-lateral line of occiput 0.5 cun lateral and parallel to upper-middle line of occiput</td>
<td>zhenshàng zhèngzhongxiàn</td>
<td></td>
<td>MS12</td>
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<tr>
<td>lower-lateral line of occiput 2 cun from BL9 straight down</td>
<td>zhenxià pángxian</td>
<td></td>
<td>MS13</td>
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<td></td>
<td></td>
<td></td>
<td>MS14</td>
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</tbody>
</table>

Dr. Carlos Alvarez, OMD, PA, BHSc, BBA
Post Stroke Acupuncture

Point location

A Proposed Standard International Acupuncture Nomenclature.

Fig. 1. Scalp acupuncture lines MS1, MS2, MS3 and MS4 (anterior view)

Fig. 2. Scalp acupuncture line MS5 (vertex view)

Fig. 3. Scalp acupuncture lines MS6 and MS7 (lateral view)

Fig. 4. Scalp acupuncture lines MS8, MS9, MS10 and MS11 (lateral view)
Characteristics of Wind Stroke / Stroke-Related Motor Impairment

Table 4.

Transgenic Ischemic Attack (TIA) symptoms
- dizziness or vertigo
- tinnitus
- transient numbness or weakness on one side of the body or
- transient numbness of the tongue with difficulty speaking or finding words, understanding words
- blurred or double-vision

Ischemic Stroke
- can develop in major blood vessels on the surface of the brain
- can develop in small blood vessels deep in the brain
<table>
<thead>
<tr>
<th>3 types of Ischemic stroke</th>
<th>Embolic Infarct</th>
<th>Thrombotic Infarct</th>
<th>Lacunar Infarct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embolic Infarct</td>
<td>20 - 30% occurs suddenly</td>
<td>a blood clot forms in one part of the body, travels through the bloodstream and lodges in and obstructs a blood vessel in the brain</td>
<td></td>
</tr>
<tr>
<td>Thrombotic Infarct</td>
<td>10-15% a blood clot forms in an artery that supplies the brain (usually the result of plaque build-up in arteries and develops over time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacunar Infarct</td>
<td>20% usually occurs as a result of arterial blockage caused by high blood pressure (HTN)</td>
<td>This type of stroke has the best prognosis</td>
<td></td>
</tr>
<tr>
<td>Hemorrhagic Stroke</td>
<td>A blood vessel in the brain ruptures and bleeds into the surrounding tissue.</td>
<td>- bleeding compresses nearby blood vessels and deprives surrounding tissue of oxygen, causing stroke.</td>
<td>Severe &amp; carries high risk of death</td>
</tr>
<tr>
<td>Types of Hemorrhagic Stroke</td>
<td>Intracerebral hemorrhage - inside the brain</td>
<td>Subarachnoid hemorrhage - large artery on or near the surface of the brain</td>
<td>- sudden severe &quot;thunderclap&quot; HA after hemorrhage vasospasm may cause further brain cell damage by limiting blood flow to parts of brain.</td>
</tr>
<tr>
<td>Channel-Collateral Stroke</td>
<td>The only stroke that can be caused by external wind</td>
<td>- Symptoms affect the periphery, are relatively milder in severity and are non-systemic</td>
<td>- Numbness &amp; weakness of the affected area - Facial paralysis - Dysphasia <em><strong>Consciousness and cognition remain intact</strong></em></td>
</tr>
<tr>
<td>Zang-Fu/Organ Stroke</td>
<td>Organs affected: KI, LR, HT, SP</td>
<td>- Severe symptoms w/systemic manifestations - Hemiplegia - Aphasia - Difficulty swallowing <em><strong>Loss of consciousness and alterations in cognition</strong></em></td>
<td></td>
</tr>
</tbody>
</table>

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Dr. Carlos Alvarez, OMD, PA, BHSc, BBA
XIII. Dr. Jiao Shunfa Protocol

Dr. Jiao Shunfa, born in Jishan County, Shanxi Province in 1936, received medical education in Shanxi Medical College. Later, he served in succession as deputy director of Jishan County Hospital, deputy director and director of the Yuncheng Prefectural Hospital, director of Public Health Bureau of Yuncheng Prefecture, director of Scalp Acupuncture Institute of Yuncheng Prefecture, vice-chairman of the Acupuncture and Moxibustion Society of Shanxi Province, and president of International Medical College of Brain and Scalp Acupuncture in Kirghizstan. Devoting to the study of acupuncture and meridian theory while practising medicine, he invented scalp acupuncture in 1971 and developed the method of intra-arterial drip of drugs into the carotid artery to treat cerebrovascular diseases together with Du Quanzhi in 1976. He authored Investigation of the Essentials of Acupuncture and Intra-arterial Drip of Drugs into Carotid Artery for Treatment of Cerebral vascular Diseases. Scalp acupuncture is a traditional Chinese therapy used to treat the hemiplegia, numbness of limbs and aphasia caused by cerebral thrombosis, cerebral hemorrhage or cerebral embolism through stimulating related parts of the scalp corresponding to the cerebral cortex with acupuncture needles. It is effective, simple, convenient and inexpensive.

Cerebral thrombosis, cerebral hemorrhage and cerebral embolism are all disorders of the brain. They pose great threats to people's health. For years, medical workers throughout the world have worked hard in the attempt to find effective cures for them. Scalp acupuncture, developed and improved by Dr. Jiao Shunfa, a Chinese specialist of acupuncture, through many years of research and clinical practice and by combining the knowledge of modern anatomy and the theory of traditional Chinese medicine, perhaps can be taken as an effective method for these cerebral disorders. There is a book written by Dr. Jiao, the principles and techniques of scalp acupuncture are systemically discussed along with typical case reports to illustrate the therapeutic effect of the therapy.

Dr. Shunfa in China Mainland is considered the scalp acupuncture inventor, and also called the Father of Scalp Acupuncture recognized by the Hu Ximing Chairman of the World Acupuncture and Moxibustion Federation and Vice-Minister of Public Health in 1971 year when it was to be started being popularized. Thanks to its unique curative effect, it has quickly spread throughout the world and has become one of the common methods for China's urban and rural acupuncture doctors to treat cerebral diseases. The invention of scalp acupuncture, which has opened up a new way for treating cerebral diseases, is of important significance to the study of tenets of acupuncture treatment. The hope is that the scalp acupuncture will be constantly perfected in practice and bring more benefits to the people. It is invented and developed by combining the theories techniques of traditional
acupuncture and the knowledge of modern physiology and anatomy of the nervous system on the basis of repeated scientific research clinical practice for many years.

The meridian system is the most important system in the human body; it can determine the survival or death of the patients, cure various diseases and adjust deficiency or excessiveness of human body. It is a huge network distributed all over the body to connect the internal organs with the external trunk and limbs and converges into the spinal cord and stops at the brain. On the basis of thoroughly sorting out and carefully analyzing the descriptions of the meridians in ancient medical literature, one can divide the meridian system into the central and peripheral parts.

The central part comprises the brain and the spinal cord in the skull and spinal canal. The spinal cord in spinal canal is also called Dumai (governor vessel), or the “sea” of all meridians and collaterals, or Shu (pivot); and the brain is considered the "sea" of Shu, or the center of the meridian system. According to the precedent statement, the governor vessel and the brain are the central part of the meridian system. The peripheral part can be further divided into the part to connect the trunk and limbs and the part to connect the internal organs. The part connecting the trunk and limbs comprises the meridians and collaterals from the brain and spinal cord and are distributed all over the trunk and limbs body, and the part linking the internal organs mainly refers to the Chongmai (thoroughfare vessel) and Renmai (conception vessel), which extend to the internal organs to control them. The thoroughfare vessel and the conception vessel go upward along the inner surface of spinal column as the "sea" of the meridian system, then emerge from the body and continue to go upward to converge at the throat. The thoroughfare vessel is the "sea" of the 12 meridians and the Renmai (conception vessel) is the "sea" of internal organs.

Besides the outlined descriptions of the meridians above, the ancient medical classics also contain descriptions and discussions of the meridian qi. As mentioned in Miraculous Pivot, "About the path of qi: The qi of chest, head, abdomen and legs all has its own path. The qi of the head flows to the brain; the qi of the chest flows to the shu acupoints in the breast and back; the qi of the abdomen flows to the shu acupoints in the back and meets with the thoroughfare vessel at the pulsating vessels beside the umbilicus; and the qi of the legs flows to Qijie (femoral artery at groins) and Chengshan (BL 57) above or below ankle," and "The Sijie (four paths) refers to the paths of circulating qi." From the discussions one can conclude: The ancient physicians already knew that the meridian qi of the head, chest, abdomen and legs each had its own path to flow, and that the qi of the head flew to brain. It indicates that the head and brain have a particular relationship with each other. Therefore,
the acupuncture over the scalp should certainly produce a satisfactory therapeutic result. This forms the theoretical basis of scalp acupuncture used to treat diseases of the brain.

**Dr. Jiao’s scalp Acupuncture stimulating areas**

Ancient Chinese physicians discovered the nervous system in human body 2,500 years ago. At that time, it was called meridian system (meridians and collaterals). It is a huge and complicated system to connect the internal organs and the external trunk and limbs; and all the meridians converge into the spinal cord (spinal canal) and end at the brain. The meridian system can affect and determine the survival or death of human beings, be used to treat hundreds of diseases and adjust the deficiency and excessiveness of the human body. Judging by descriptions of the meridian system in the ancient medical literature, *Internal Canon of the Yellow Emperor*, compiled in the spring and Autumn Period and Warring States Period, it is similar to the nervous system in modern medicine. I think the nervous system in modern medicine is derived from the meridian system through many transformations and modifications.

Therefore, the nervous system in human body was first discovered by Chinese people and the anatomy and physiology of nervous system in modern medicine is actually an inheritance and development of the ancient meridian system.

The scalp acupuncture was invented and developed through clinical practice by combining the techniques of traditional acupuncture and the knowledge of modern anatomy and physiology. The stimulating areas over the scalp are defined chiefly according to the location of the functional areas of the cerebral cortex. For example, since the pre-central gyrus is a motor center of the cerebral cortex, this area over the scalp is defined as the motor area.
Dr. Jiao’s location and indications of stimulating areas of Scalp Acupuncture

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor area</td>
<td>The upper end lies on the anterior-posterior median line 0.5 cm behind its midpoint and the lower end lies at the intersect of supraciliary occipital line and anterior border of temple. The connecting line of these two points is the motor area which can be divided into five sections.</td>
<td>The upper one-fifths is used to treat paralysis of the contralateral leg; the middle two-fifths to treat paralysis of the contralateral arm; and lower two-fifths to treat paralysis of the contralateral side of the face, motor aphasia, dripping of saliva and impairment of phonation.</td>
</tr>
<tr>
<td>Sensory area</td>
<td>Parallel to and 1.5 cm behind the motor area.</td>
<td>Upper one-fifth: pain, numbness and abnormal sensation of the contralateral side of the back and the contralateral leg, occipital headache and tinnitus. Middle two-fifths: pain, numbness and abnormal sensation of the contralateral arm. Lower two-fifths: numbness and pain of the contralateral side of the head, migraine and arthritis of temporomandibular joint.</td>
</tr>
<tr>
<td>Chorea and tremor controlling area</td>
<td>Parallel to and 1.5 cm to the front of the motor area.</td>
<td>Involuntary movement and tremor of the contralateral limbs.</td>
</tr>
<tr>
<td>Vascular dilation and constriction area</td>
<td>Parallel to and 1.5 cm to the front of the chorea and tremor controlling area.</td>
<td>Essential hypertension and cortical edema.</td>
</tr>
<tr>
<td>Dizziness and auditory area</td>
<td>A horizontal line with its midpoint 1.5 cm directly above the tip of the ear auricle.</td>
<td>Ipsilateral dizziness, tinnitus, auditory vertigo, cortical impairment of hearing and auditory hallucination.</td>
</tr>
<tr>
<td>Second speech area</td>
<td>A 3-cm line parallel to the anterior posterior median line, which goes downward from the point 2 cm behind the parietal tuber.</td>
<td>Anomie aphasia.</td>
</tr>
<tr>
<td>Third speech area</td>
<td>A horizontal line which goes 4 cm backward from the midpoint of the dizziness and auditory area.</td>
<td>Sensory aphasia.</td>
</tr>
</tbody>
</table>
Post Stroke Acupuncture

Application area

Three lines, 3 cm in length each, drawn from the parietal tuber. The middle line goes toward the center of mastoid process, the second line is to the front of the middle line and the third to the back, and together they make a 40-degree angle with the middle line.

Contralateral parectropia.

Motor and sensory area of foot

A parallel line of 3 cm in length over the vertex of the head and 1 cm beside the anterior-posterior median line, going from the 1-cm point to the anterior side of the upper end of the motor area to the 1 cm point to the posterior side of the upper end of the sensory area.

Pain, numbness and paralysis of the contralateral side of the back and contralateral leg. Baby bed-wetting, cortical frequent urination, cortical dysuria, cortical incontinence of urination and prolapse of anus by needling stimulation one both sides; frequent and urgent urination due to acute cystitis, thirst, polyuria and increase of water intake due to diabetes mellitus, impotence, emission and prolapse of uterus, and diarrhea due to irritable colon or other diseases by simultaneous needling stimulation.

Fig. 9 (1-2) Marking Lines of Skull
2) Middle two-fifths: To treat paralysis of the contralateral upper limb. Fig 10 (1-3)

Fig. 11 (1-4) Lateral View of Stimulating Areas on Scalp
Fig. 12 (1-5) Stimulating Areas Viewed from the Top of the Head

Fig. 13 (1-6) Backside View of Stimulating Areas

Fig. 14 (1-6) Frontal View of Stimulating Areas
Dr. Jiao’s location and function of Stimulating Areas

To define the stimulating areas, it is necessary to establish marking lines over the scalp according to some demarcations on the surface of the skull (Fig. 1-1). Anterior-posterior median line: This median line is drawn from the midpoint between the eyebrows to the lower border of external occipital tuberosity.

(1) Motor area

Location:
The upper end of motor area lies 0.5 cm behind the midpoint of anterior-posterior median line and the lower end lies at the intersection of the supraciliary-occipital line and anterior border of temple (Fig. 1-2).

Function:
1) Upper one-fifth: To treat paralysis of the contralateral lower limb.
2) Middle two-fifths: To treat paralysis of the contralateral upper limb.
3) Lower two-fifths (first speech area): To treat facial paralysis, motor aphasia, dripping of saliva and disturbance of phonation.

(2) Sensory area

Location:
It is parallel to and 1.5 cm behind the motor area (Fig. 1-3).

Function:
1) Upper one-fifth: To treat pain, numbness and abnormal sensation of the Contralateral side in the back and leg, occipital headache, pain of the neck and nape, and tinnitus.
2) Middle two-fifths: To treat pain, numbness and abnormal sensation of the Contralateral arm.
3) Lower two-fifths: To treat numbness and pain of the contralateral side in the head and face.

(3) Controlling area of chorea and tremor

Location:
It is parallel and 1.5 cm to the front of the motor area (Fig. 1-3).

Function:
To treat involuntary movement and tremor of contralateral limbs.

(4) Vascular dilation and constriction area

Location:
It is parallel and 1.5 cm to the front of the chorea and tremor controlling area (Fig. 1-3).
Function:
To treat essential hypertension and cortical edema.

(5) Dizziness and auditory area
Location:
Taking the point 1.5 cm directly above the tip of ear auricle as the midpoint of a horizontal line, which is 4 cm in length. This is the dizziness and auditory area (Fig. 1-3).
Function:
To treat ipsilateral dizziness, tinnitus, auditory vertigo, cortical Impairment of hearing and auditory hallucination.

(6) Second speech area
Location:
To draw a parallel line along the anterior-posterior median line through the parietal tuber and take a section of 3 cm in length from the point 2 cm behind the tuber (Fig. 1-3).
Function:
To treat anomie aphasia.

(7) Third speech area
Location:
To draw an extending line backward from the midpoint of dizziness and auditory area, 4 cm in length (Fig. 1-3).
Function:
To treat sensory aphasia.

(8) Application area
Location:
To draw a line from parietal tuber to the center of mastoid process and draw two more lines from the same origin of the first line at the tuber, one in front of the first line and another one behind the first line with an angle of 40 degrees between the first line and each of the latter lines, all 3 cm in length (Fig. 1-3).
Function:
To treat parectropia.

(9) Motor and sensory area of foot
Location:
To draw two parallel lines 1 cm beside the anterior-posterior median line, 3 cm in
length, from a point 1 cm to the front of the upper end of motor area to a point 1 cm to the back of the upper end of sensory area (Fig. 1-4).

**Function:**
To treat pain, numbness and paralysis of the contralateral side of the back and contralateral leg.
To treat bed-wetting of babies, cortical frequent micturition, cortical dysuria, cortical incontinence of urination and prolapse of anus by needling stimulation on both sides.
To treat frequent and urgent urination due to acute cystitis, thirst, diuresis and increase of water intake due to diabetes mellitus, impotence, emission and prolapse of uterus by needling stimulation on both sides of the reproductive area and this area; to treat irritable colon and diarrhea due to some other causes by needling stimulation on both sides of the intestine area and this area.
To treat oliguria due to rheumatic heart disease by stimulating both sides of the thoracic cavity area and this area; and area and this area.

(10) **Optic area**

**Location:**
To draw two 4-cm parallel lines one centimeter beside the anterior-posterior median line, one on each side, from the level of external occipital tuberosity upward (Fig. 1-5).

**Function:**
To treat cortical impairment of vision and cataract.

(11) **Balance area**

**Location:**
To draw two parallel lines, 4 cm long vertically and 3.5 cm beside the median line on both sides, from the level of external occipital tuberosity downward (Fig. 1-5).

**Function:**
To treat disturbance of body balance due to injury of the cerebellum.

(12) **Stomach area**

**Location:** To draw two parallel vertical lines of 2 cm in length directly above the center of pupils from the anterior hair border (or 6 cm from the level of the midpoint between eyebrows) (Fig. 1-6).

**Function:**
To treat the acute and chronic gastritis and pain due to peptic ulcer of stomach and duodenum.
(13) Liver and gallbladder area

Location:
To extend the stomach area downward for 2 cm (Fig. 1-6).

Function:
To treat pain in the right upper abdomen due to disorders of the liver and gallbladder.

(14) Thoracic cavity area

Location:
To draw two 4 cm parallel lines between median line and the stomach area on both sides, with 2 cm above and 2 cm below the anterior Hairline (Fig. 1-6).

Function:
To treat allergic asthma, bronchitis, angina pectoris, rheumatic heart disease, paroxysmal supraventricular tachycardia (also effective to some extent to treat palpitation, shortness of breath, edema and oliguria).

(15) Reproductive area

Location:
To draw two 2 cm vertical lines, parallel from the frontal corner upward (Fig. 1-6).

Function:
To treat functional uterine bleeding. To treat frequent urination and urgent urination due to acute cystitis, extreme thirst, polyuria and increase of water intake due to diabetes mellitus, and impotence, emission and prolapse of uterus by stimulating both sides of the motor and sensory area of foot and this area.

(16) Intestine area

Location:
To extend the reproductive area on both sides downward for 2 cm (Fig. 1-6).

Function:
To treat pain in the lower abdomen with certain effect.

The locations of frontal stimulating areas are defined according to the spread of the needling sensation and therapeutic effects, rather than according to the division of the underlying functional areas of the cerebral cortex.
XIV. Dr. Shi Xue Min Protocol

To the acupuncture community, Dr. Shi Xue-Min is known as a distinguished acupuncturist and academician of the Chinese Academy of Engineering and a supervisor of doctoral candidates in China. Dr. Shi Xue-Min is particularly known for his creation of the stroke acupuncture technique Xing Nao Kai Qiao (XNKQ), which is translated as "activating the brain and opening the orifices." During the Chinese Revolution, he was among a few who survived in his position. After establishing The First Teaching Hospital University of Traditional Chinese Medicine in Tianjin, China, Dr. Shi's leadership allowed the hospital to grow to an astounding degree, from 200 beds to 2,000 beds. He is the first doctor who proposes the theory of quantitative needling manipulation which is Xing Nao Kai Qiao. Since the early 1970s, over two million stroke patients have been treated at the hospital using Dr. Shi's XNKQ method.

Dr. Shi has nearly 50 years of experience in the field of Traditional Chinese Medicine. He is the recipient of numerous awards and has published extensively. He has been the past recipient of 15 awards and two patents on the state, ministerial and municipal levels. He also published 12 major works, more than 30 theses, and authored more than 40 books. The work he has done has greatly encouraged many doctors to conduct research on the effects of acupuncture and meridians.

As most know, Chinese acupuncture has about 2,700 years of history. Dr. Shi Xue-min's theory and techniques known as "Xing Nao Kai Qiao" (XNKQ), is a very effective method of acupuncture for the treatment of stroke. Dr. Shi inherited traditional Chinese medicine, but he also developed the modern concept of quantitative needling manipulation. He was the first doctor in the world to propose the theory of quantitative needling manipulation. He used scientific experimental methods and studied the relationship between clinical effects and needling techniques, including needle retention time, rotation angle and frequency. Moreover, through the efforts of more than 100 of his PhD students, the study of XNKQ has extended even into research at the DNA level. Dr. Shi's concept of quantitative needling manipulation is more valuable than XNKQ alone, and it greatly contributes to the development of acupuncture and research. Thus, Dr. Shi is often referred to as "China's Treasure."

Dr. Shi has traveled to countries all over the world to treat patients and to teach doctors about his XKNQ method of treating stroke patients. He has visited countries such as are Algeria, Germany, Japan, Mexico, France, Italy, and the United States, and he has flown enough miles to circle the Earth about 38 times. Nowadays, even in his seventies, he still...
flies around the world to spread the word about Traditional Chinese Medicine and his XNKQ method to treat stroke patients.

Last year, Dr. Shi was featured in the acclaimed documentary film 9,000 Needles. The film illustrated the treatment of severe stroke patients by Dr. Shi and his team.

**What is Xing Nao Kai Qiao (XNKQ)?**

The Xing Nao Kai Qiao (XNKQ) method was created by Dr. Shi in 1972, illustrating a new approach to the treatment and rehabilitation of stroke patients. As a result of nearly 40 years of working with stroke patients, the "XNKQ" method has developed into a diagnostic and treatment system.

According to the World Health Organization (WHO), stroke is the third leading cause of death in most countries of the world, surpassed only by heart disease and cancer. By the year 2030, it is expected to be the leading cause of death. In the United States, each year 750,000 individuals suffer a stroke and 150,000 people die from stroke. Each year in China, 5-6 million people suffer from stroke and approximately 1.5 million people die from stroke. Stroke affects three times as many women as breast cancer, and it is an important cause of prolonged disability. Survivors of strokes are often unable to return to work. The economic, social and psychological costs of stroke are enormous.

The theoretical TCM basis of the XNKQ method was based on "spirit-arousing" and "spirit-regulating." Dr. Shi put forward a new conception of the etiology and pathogenesis of stroke, based on a deep understanding the theory of "spirit" in TCM combined with the anatomy and physiology of the brain in biomedicine. Dr. Shi posited that fire, phlegm, blood (stasis), and deficiency carried upwards by wind (internal wind) disturbed the lucid orifices and spirit, leading to closure of the orifices and concealment of the spirit, which in turn caused the spirit to fail to guide the qi, thus stroke occurred.

The XNKQ acupuncture method for treating apoplexy/stroke explained the main pathological keys to etiology, pathogenesis, disease location, and manifestations, and created scientific standards of point selection and acupuncture manipulation. A large amount of clinical practice has confirmed that the treatment method is effective, easy, convenient and practical with a strong scientific standard. The XNKQ method is based on activating and regulating the spirit, restoring qi and spirit, regulating yin-yang and qi-blood, calming, dredging the meridians and supplementing the marrow.

The principles of traditional acupuncture treatment in stroke patients include "calming liver-yang and smoothing liver wind" in the acute period. "Smoothing meridians" is the main principle in stable cases and the sequel period. The points chosen were based on the theories of "using three yang meridians to treat wind" and "using Yang-Ming meridians to
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treat apoplexy." A comparison of clinical effects and research shows that the traditional acupuncture treatment for stroke patients has a definite effect in stabilizing the disease and improving physical function. However, to improve cerebral circulation and protect the brain cells, the changes in brain function are not obvious. Dr. Shi's XNKQ mainly uses Yin meridians and the Du meridian to activate the brain and open the orifices and nourish the liver and kidney; smoothing the meridians is supplementary.

The theory of quantitative acupuncture manipulation put forward first by Dr. Shi determines a new definition and quantitative manipulation for reinforcing and reducing methods of needle manipulation. Particular attention is given to twirling and rotating, including four important factors. The direction of applied force is an important factor in determining reinforcing vs. reducing technique. The reinforcing or reducing nature of twirling and rotating is directly related to the applied force, the best duration of reinforcing or reducing manipulation based on twirling and rotating the needle is 1-3 minutes for each point. Finally, the best interval between two sessions of acupuncture is three-to-six hours, allowing acupuncture therapy to be more reproducible, standardized, and controlled.

Additionally, Dr. Shi investigated the most commonly used methods of manipulation for reinforcing and reducing in terms of frequency, range, and direction of applied force. His research on quantification of reinforcing and reducing manipulation techniques resulted in two significant definitions:

1) The twelve channels are positioned with the Ren and Du channels in the center; in regard to the right or left direction of needle rotation, directing the rotation towards the heart is reinforcing and directing the rotation away from the heart is reducing.

2) Rotating the needles within a narrow range with light force is reinforcing; the force is light and the range of rotation is narrow, but the frequency is high, the needles are rotated under 90 degrees and the frequency of rotation reaches 120 times per minute. By contrast, a wide angle of rotation, increased force, and relatively less frequent rotation is reducing; the angle of rotation is greater than 180 degrees and the frequency is approximately 50-60 times per minute.

**Dr. Xue's manipulation and composition of the XNKQ needling method**

One of the main reasons for the efficacy of the XNKQ method lays in its strict application of principles, in particular its special specifications in terms of manipulation technique. The principle points in clinical use are the most important because they free and regulate the spirit; this emphasis is one of the most important differences between the XNKQ method and traditional acupuncture.

Dr. Carlos Alvarez, OMD, PA, BHSc, BBA
Dr. Xue’s principle points of the XNKQ method include:

DU26, PC6, SP6, LU5, HT1, and UB 40.

DU26 is a point that was highly regarded historically for emergency situations; it can directly excite and activate the restrained state of the brain cells. It has a special characteristic of increasing the circulation of the carotid artery, which helps the dynamics of blood circulation and improves cerebral circulation. Thus, the use of this point with sparrow pecking stimulation can open the orifices, arouse the original spirit, and regulate the bowels and viscera.

PC6 is the LUO point of the pericardium channel; it can benefit stroke patients by improving cardiac output and oxygen supply while calming the heart, regulating the blood, and quieting the spirit.

SP6 supplements the three yin channels, boosts marrow, regulates qi and blood, and quiets the spirit.

HT1, LU5 and UB40 can dredge the channels, move qi and blood, and improve the function of the limbs.

Within these points:

DU26 is the chief,
PC6 and SP6 are ministers, and
HT1, LU5, and UB 40 are assistants and couriers.

All together regulate and brighten the original spirit, balance yin and yang, regulate qi and blood, and free the channels. One treatment course constitutes 10 days of twice daily treatments; 3-5 treatment courses are used continuously.

Dr. Xue’s needle manipulation techniques used in XNKQ

The efficacy of XNKQ is closely related to its strict attention to techniques of needle manipulation. One of the key differences between XNKQ and traditional acupuncture methods is the importance placed upon principle points that arouse the spirit and open the orifices in order to achieve the essential effect of regulating and freeing the original spirit.

The principle points used in XNKQ are:

DU 26 (ren2 zhong1),
PC 6 (nei4 guan1),
SP 6 (san1 yin1 jiao1),
HT 1 (ji2 quan2),
LU 5 (chi3 ze2), and
BL 40 (wei3 zhong1).
Post Stroke Acupuncture

Ancient doctors greatly valued DU-26 (ren2 zhong1) as an important point to arouse the brain in emergency situations; it has an excitatory effect on the nervous system and it has an idiosyncratic effect of increasing blood flow in the carotid artery while improving cerebral circulation. Using sparrow pecking technique to drain DU-26 (ren2 zhong1) opens the orifices, arouses the original spirit, and regulates the bowels and viscera.

The XNKQ method of needling has a clear effect in stroke patients, with pronounced positive effects in multiple systems. Dr. Shi has studied its clinical effects for over 30 years in numerous systems involving many different disciplines of treatment, prevention, and rehabilitation. He has contributed standards of integration and management for the diagnosis and treatment of stroke, which has been called a unique "chapter on the treatment methods of Master Shi." It has been shown to reduce mortality and enhance rehabilitation in stroke patients, and is widely regarded as an excellent method of treatment.

Another key aspect of the XNKQ method is the emphasis on manipulation techniques for the principle points. Each point has clear specifications on direction, depth, and hand techniques, which have been assessed with numerous scientific studies. Thus, the needling method is based on established science and standards that enhance clinical results.

After Dr. Shi published his work with the XNKQ needling method, a clinical system of stroke diagnosis and treatment was developed. Altogether, more than two million stroke patients have been treated with this system of acupuncture therapy. In recent years, 9,005 patients with stroke at various different stages were assessed based on strict, harmonized diagnostic standards and treated principally with the XNKQ method. Based on their specific condition, patients utilized drug therapies including medication for hypertension, infections, and other concerns based on internationally accepted standards of care. Marked results were seen in 95-98 percent of patients with a variety of different stages and conditions, including acute stages, hemorrhagic stroke, and recovery stages.

Over the past 40 years, Dr. Shi's humble yet highly innovative work has truly entered the history books.
XV. Dr. Zhu Ming Qing protocol

Professor Zhu Ming Qing, was associate professor at Dr. Lu Shoukang’s Department of Orthopedics, and Traumatology of the Beijing College of Acupuncture, Moxibustion, before emigrating to the U.S. he has developed a popular version of scalp acupuncture. I quote a text from the Journal of Traditional Chinese Medicine: “In recent years, Zhu’s scalp acupuncture has been a craze in Japan, America, and China. As a school of scalp acupuncture therapy, Zhu’s method is actually derived from the standard scheme (adopted in China) and based on the clinical experience of Zhu Ming Qing. In Zhu’s scalp acupuncture, 8 therapeutic zones are used (actually, 9 zones), and the manipulation is characterized by forceful, small-amplitude lifting and thrusting of the needle, associated with massage of the body part to be affected, and physical and breathing exercises. In fact, the therapeutic zones in Zhu’s scalp acupuncture are determined on the basis of the standard scheme.”

Dr. Zhu’s father was an acupuncturist who worked on scalp acupuncture, and Zhu has been working as an acupuncturist since graduating from the College of Chinese Medicine in Shanghai in 1964. He served as assistant director of the Scalp Points Research Group of the Chinese Acupuncture Association from 1987 to 1989. Since coming to the U.S., he has worked closely with Dr. Eva Munwu Chau, former president of the California Acupuncture Association. In 1991, Zhu established the Chinese Scalp Acupuncture Center of the U.S.A. in San Francisco, and, in 1992, he published an English-language book on his methods: Zhu’s Scalp Acupuncture. He currently provides treatments for several neurological disorders at Zhu’s Acupuncture Medical & Neurology Center, in San Jose, California

According to Dr. Zhu, Baihui (GV-20) is the basis for all of the scalp points. Quoting from the Ling Shu: “The brain is the sea of marrow. Its upper part lies beneath the scalp, at the vertex, at point Baihui.” The point’s Chinese name indicates that it is the great meeting place (literally: hundred meetings). Traditionally, this point is treated to stabilize the ascending yang; it is also needled in order to clear the senses and calm the spirit.

The Governing Vessel enters the brain at point Fengfu (GV-16). The external pathway of the Governing Vessel is used to divide the left and right sides of the scalp. The left side governs qi and the right side governs blood. Needling of the left side has a greater impact on disorders of the left side of the head and neck, but of the right side of the body below the neck, and conversely.
Post Stroke Acupuncture

In Zhu's system of acupuncture, there are three main zones (designated the Eding zone, Dingzhen zone and Dingnie zone) subdivided into a total of 11 portions, and three secondary zones, each divided into two portions (designated Epang 1, Epang 2, front zone of Dingjie, back zone of Dingjie, Niehou and Nieqian). The zone names are simply based on anatomical descriptions. Following is a review of the primary scalp acupuncture zones.

| Table 6 |
| Eding Zone | Ding refers to the top of the head, and E (pronounced “uh”) refers to the forehead. The Eding zone runs from the forehead to the top of the head. This is a zone that runs along the governing channel, covering a narrow band from a point 1/2 cun in front of GV-24 (at the forehead/scalp border) back to GV-20. The width is 1 cun and the length is 5 cun. The Eding zone governs the yin side (front) of the body, running from the perineum (GV-20 area of needling) to the head (GV-24 area of needling). The zone is divided into four regions. |
| Ding zhen Zone | Zhen (pronounced “jun”) refers to pillow, and indicates the back of the head. The Ding zhen zone runs from the top of the head to the back of the head, between GV-20 and GV-17. The zone is 1 cun wide. It governs the spine, the yang aspect of the body (back). It can be divided into 4 regions, equally spaced from each other. This region is mainly used for pain. |
| Ding nie Zone | Nie (pronounced “nyeh”) refers to the temple. The Ding nie zone runs from the center top of the head to the temple, at an angle (aiming to the cheekbones). It is located on a line from GV-21 to 1/2 cun anterior to ST-8. The zone is 1 cun wide. It can be divided into 3 equal parts, and each part is used as a representation of a body region that can be treated within the zone. The front Dingjie zone treats an area of the body just above that treated by the end of the Eding zone, and the back Dingjie zone treats an area just below that treated by the beginning of the Dingzhen zone. |
Eding 1 is the anterior quarter of the region, extending from GV-24 forward by 1/2 cun. This region is used to treat the whole head and neck region. The effects of treatment in this region include calming the spirit, opening the orifices, arousing the mind, and brightening the eyes. To treat, insert the needle along the side of the zone that corresponds with the side of the head or neck that is affected. That is, although treatment usually includes one needle in the center of the zone (along the GV line), if the problem is on the right side of the head or throat, place the needle on the right side of the zone. For example, treating blurred vision in the right eye, place one needle in the right side of the Eding 1 zone or insert the needle at the center of the zone and direct it to the right side of the zone. The direction of needling is usually towards the face.

Dingzhen 1 (starting at GV-20) governs the back of the head and the neck. Dingzhen 2 governs the vertebrae C-7 (seventh cervical, base of the neck) through T-10 (10th thoracic). Dingzhen 3 governs the vertebrae T-10 through L-5 (fifth lumbar). Dingzhen 4 (ending at GV-17) governs the sacrum and coccyx. Needling here is painful, so it is rarely used. Epang 2 is used to treat acute diseases of the lower burner. It is located halfway between GB-13 and ST-8. The zone is 1 cun long and 1/2 cun wide.

Dingjie Zone
Jie (pronounced “jeah”) refers to being closely bound to something: this is a zone adjacent to GV-20. Dingjie has a front zone—Dingjieqian—and a back zone—Dingjiehou. Qian (pronounced “chian”) means forward, and hou

Dingnie 1 governs the lower limbs. The homunculus for this zone looks like a person is kneeling with their foot and thigh on top of each other (near GV-21), and their knees pointing towards ST-8. This zone does not include the hip joint. Dingnie 2 governs the upper limbs. The homunculus for this zone looks like a person with their elbows bent. The elbow zone is near the region between Dingnie 1 and 2. The upper arm (not including the shoulder) and wrist are mapped near the intersection between Dingnie 2 and 3. Dingnie 3 (near ST-8) governs the head. It covers motor-sensory problems. This zone is rarely used as it can be painful to needle; Eding 1 is usually used instead. Mapping from the frontal hairline back, the top of the body is forward. Also, the sensory zone is toward the
**Eding 2** is the second quarter of the zone, extending from GV-24 to GV-22. This region is primarily used to treat disorders of the chest region. The functions include opening the chest and regulating qi, opening the lungs, stopping wheezing, and calming the spirit. If the problem is on one side of the body, needle the side of the zone on the opposite side (contralateral).

**Eding 3** is the third quarter of the zone, extending from GV-22 to GV-21. This region is primarily used to treat disorders of the middle burner (including treatment of acute appendicitis). The functions include stopping vomiting and diarrhea, regulating the liver qi, and regulating the gallbladder. To treat, use the contralateral side.

**Eding 4** is the last quarter of the zone, extending from GV-21 to GV-20. This region is used to treat the lower burner and the lower limbs. The functions include (pronounced “how”) means back.

**Nieqian and Niehou Zones**

Nie (pronounced “nyeah”) refers to the temple. The Nieqian (meaning forward temple) zone is near the temple, above and to the front of the sideburn, while the Niehou (meaning back temple) zone is set back from the temple (over the top of the ear). The zones at the sides of the head are rarely used because the needling tends to be painful.

**Nieqian Zone:** This zone is located on a line from GB-4 to GB-6. It is used to treat shaoyang disorders (those that are deemed half-inside and half-external in nature, and those affecting the liver/gallbladder areas, such as hypochondrium and sides of the chest), side-of-the-face problems, menstrual-related migraines.

**Niehou Zone:** This zone is located on a line from GB-9 to TB-20. It is mainly used to treat diseases of the ear.
regulating the menses, strengthening
insertion from GV-21

towards ST-8 or in the
reverse direction.

The Eding and Dingzhen zones together form a central line from the front to the back of the scalp. In mapping the zones to the body structure, this line represents a continuum from head to abdominal base repeated twice, first covering the front of the body (the more frontal points) and then the back of the body. The meeting point of the two zones, GV-20, can be used to treat the entire body, depending on the aim of the needle. This mapping of the body runs from the center line (GV, the Eding zone governing head and throat) to the side, progressing from head to middle warmer to lower warmer.

As described above, Zhu follows the principal that if the disorder affects the left or right side of the body, then treatment that is intended to affect the head or neck is done on the same side of the zone as the side of the disorder (ipsilateral), but if it is below the neck, then the needle is placed on the opposite side of the zone. This approach has been followed by many scalp acupuncture specialists in China. However, a few researchers claim that clinical evidence does not support the need to treat one side or the other; rather, one can alternate sides on subsequent days. At this time, there is probably insufficient data to demonstrate that one or the other approach is significantly better. Alternate side needling might be better tolerated by the patient when daily needling is used. For those following Zhu’s technique, treating one side according to location of symptoms would be consistent with his extensive clinical experience.

**Dr. Zhu’s mapping the body within the zones**

The Dingnie zones, which extend at angles towards the front of the head (from GV-21 to ST-8 on either side) from the central Eding zone, overlap the central zone. The mapping of body parts to the zones places the foot at the beginning of the Dingnie zone (at GV-21) and the head at the end of the Dingnie zone (at ST-8): Dingnie zone #1 is used for treating the legs; Dingnie zone #2 is used for treating the arms; Dingnie zone #3 is used for treating the head. However, because Dingnie zone #3 is more painful to needle and, because treatment...
of the head is adequately accomplished in the Eding zone #1; Dingnie #3 is seldom used by Dr. Zhu.

To visualize the mapping, imagine a person squatting down with arms bent, placing the elbow on the knee, with the hand by the shoulder. The beginning of Dingnie #1 is at the base of the foot, this overlaps with the upper thigh due to the squatting position, and then it maps upward to the knee; the zone then continues up the arm from the elbow towards the hand and shoulder, including the forearm in that same space (Dingnie #2); finally, it follows up the head (Dingnie #3). The foot location of the Dingnie zone #1 extends all the way to the far side of the Eding zone (the Eding zone runs along the governor vessel; the zone covers 1/2 cun on either side of GV; when needling Dingnie to treat the foot, the point of the needle, threaded into the scalp, rests at the junction of the beginning of Dingnie zone #1, where it meets the far side of Eding. Therefore, the needle enters the scalp behind the Dingnie zone. Dingnie zone #1 does not include the hips, and Dingnie zone #2 does not include the shoulder girdle; to treat those parts of the body, Dr. Zhu relies primarily on the Dingnie zones. Aside from the standard zones, palpation of the scalp for tender points helps Zhu to identify the specific needling sites within the selected zone. The Eding zone is the most frequently used of the scalp zones, with the Dingnie zones being used additionally for treating affected limbs.

When treating a neurological problem that affects the extremities, the needles are directed, along a zone, towards the opposite extremity. Thus, for example, if the left leg is affected, the needle will be directed outward along Dingnie #1 on the right side of the scalp. Only for problems of the head and neck is the needling done on the same side of the scalp as the disorder. For disorders that are not specific to a body location, such as hypertension or epilepsy, needling may be done on both sides of the zone.

If the disorder to be treated is associated with a degenerative disease involving a kidney deficiency syndrome, (common in elderly patients and those with chronic, degenerative diseases), then Eding zone #4 is usually needled. A typical needling pattern is: one needle in the center of the zone, and one needle on either edge of the zone, about 0.5 cun apart from the central needle; for a total of 3 parallel needles in the zone, with the central needle leading the other 2 by about 0.5 cun, producing an arrow formation; the outer 2 needles are directed towards the part of the zone that corresponds to the kidney, while the inner needle is directed toward the part of the zone corresponding to the genitals.

Dr. Zhu sometimes uses a “crossing” technique for needle positioning, mainly in treating cases of severe pain. He selects a zone site for treatment, and inserts one needle along the zone and then inserts a second needle perpendicular to that one, going across the zone.
and crossing over the first needle. As an example for right-knee pain, a needle is first
directed along Dingnie #1 towards the left temple, and then a second needle is inserted
across that one. The second needle is stimulated by the draining method. In cases of
quadriplegia, another crossing technique is used. The first needle is inserted across the
zone (e.g., from the left part of the zone to the right part of the zone, at about a 45 degree
angle), and then a second needle, crossing over the first (e.g., from the right part of the zone
to the left part of the zone). In some cases, a series of cross-over needles are inserted along
the length of a zone (this may incorporate as many as 3 pairs of needles).

**ZHU’S ZONE CHARTS**

![Fig. 15](image1)

![Fig. 16](image2)

![Fig. 17](image3)

![Fig. 18](image4)
Stimulation Areas—Side View

Stimulation Areas—Top View

Stimulation Areas—Back View

Stimulation Areas—Front View

Fig. 19
XVI. Dr. Toshikatsu Yamamoto Protocol

In the nineteen sixties, the Japanese physician and scientist Toshikatsu Yamamoto discovered an independent acupuncture system. Dr. Yamamoto presented this method, which originally consisted of five points, for the first time at a Japanese Ryodoraku Congress in Japan in 1973. For twelve years, using these highly effective points, which he termed basic points, he successfully treated stroke patients suffering from pain and paralysis.

Taking second place only to ear acupuncture, YNSA (Yamamoto et al., 2010) is today the most widely and frequently used form of acupuncture and is gaining increasing significance. Since 1973, in addition to the basic points, several other points have been discovered namely sensory point, brain points, Y points, extra points, treatment points on the thorax and in the region of the pubic bone, dorsal treatment points and additional peripheral points as well as various diagnostic points. Hardly any other acupuncture system can be described as so fertile since Dr. Yamamoto is untiring in his search for new methods of treatment, points and soma topes in his daily work. In Japan, acupuncture was largely practiced by masseurs, which meant that it was not highly regarded in classical medicine or, in particular, at university medical schools. Interest in and receptiveness to acupuncture is gradually increasing, also at some Japanese universities. YNSA has been the subject of numerous studies and publications. YNSA is also used very successfully in veterinary medicine, for example to treat cats and dogs. A number of research projects and publications on YNSA are eagerly awaited in the near future.

Dr. Yamamoto's YNSA Japanese scalp therapy, Korean Koryo Chim hand acupuncture, supplemental ear (auricular) acupuncture, and Xingnao Kai Qiao (another therapy developed by Professor Shi Xuemin) are each advocated by a number of treatment centers in Oriental countries. One need not know in depth the approach of each, but it is important to know that more than one approach is available and used.

YNSA Principles

The basic points are still used successfully in daily practice. Acupuncture needles are applied ipsilateral at these basic points for pain therapy while for the treatment of central paresis they are applied contralateral to the paretic side.

YNSA is a special form of traditional acupuncture. The method is based on a somatotopoe on the scalp. In the same way as with ear or mouth acupuncture, the entire organism is projected here on a defined area of the scalp. The locomotors system is at the boundary of the forehead and hair, whereas the internal organs are represented via Ypsilon points on both temples. Scalp acupuncture distinguishes a yin somatotope at the front of the scalp and a yang somatotope at the back of the scalp. With the aid of the special Japanese neck
diagnostics, the associated Ypsilon therapy points in the temples or the corresponding cranial nerve points are revealed via pressure-sensitive points in the neck region. As a representative of each meridian, there is a pressure point on the neck and an associated treatment point in the region of the temples. If, for example, the kidney point on the neck is sensitive to pressure the needle is applied to the corresponding Ypsilon point in the temple. If the needle has been correctly positioned in the temple region then the pressure sensitivity in the neck disappears consecutively and thus provides immediate verification for correct positioning of the needle.

The abdominal diagnosis leads to the Ypsilon or cranial nerve points
In contrast to the pulse and tongue diagnosis of traditional Chinese medicine, Yamamoto New Scalp Acupuncture (YNSA) is characterized by the special feature abdominal wall and neck diagnostics. These diagnostic procedures enable the acupuncture points to be identified individually in each treatment situation indicating where the needles are to be applied for each individual person in the respective treatment situation. When the needle is correctly positioned, the sensitivity to pressure felt by the physician and patient disappears. This check makes it possible to discover whether the needle is correctly positioned. It is important to investigate the diagnostic points on the arm and neck by shifting the pressure to the side. In doing so, the points are palpated with the tip of the thumb. Applying pressure solely to the points may falsify the results of the examination. In the case of abdominal wall diagnostics, the examination is performed by palpation using the index, middle and ring fingers with gently circling movements.

Relevance of the YNSA cranial nerve points
The cranial nerve points are highly active acupuncture points on the frontal scalp. Using these points, disorders of the corresponding meridians and the cranial nerves can be treated.
For example, the lung cranial nerve point, the glossopharyngeal point is used for the treatment of the swallowing disorders after stroke as well as pulmonary disorders of different origin. Based on the YNSA-Yin basic point A, 12 cranial nerve points are located in a row in the dorsal direction up to DuMai20 for approximately 6-8 cm. For the practical use, the cranial nerve points are identified by the abdominal or neck palpation technique. The painful abdominal or neck points show the way to the corresponding cranial nerve points. After correct acupuncture of the relevant cranial nerve points, the pain intensity of the abdominal or neck sites should be reduced, similar to the Ypsylon points. Similar to the other YNSA points, the cranial nerve points display small treatment areas, which are identified using careful palpitation. Acupuncture is then performed at the point with the highest pain intensity.
Similar to the basic, brain and Ypsilon points, a careful palpitation is necessary and important for the localization of the cranial nerve points. The known Ypsilon and cranial nerve points can be used alone and in combination. It is important that the treated acupuncture point is reported as painful by the patient. A site which is not painful should not be treated. The cranial nerve points have shown to be very suitable for treatment of motor and other neurological symptoms.

**YAMAMOTO’S SCALP ACUPUNCTURE**

![Diagram of frontal YNSA basic points and Ypsilon points with needle application]  
Fig. 20. Schematic representation of the frontal YNSA basic points. Needles are applied ipsilaterally for the treatment of pain and contralateral for the treatment of paralysis.

![Diagram of Ypsilon points and abdominal or neck diagnosis]  
Fig. 21. Ypsilon points. Abdominal or neck diagnosis leads to the selection of the Ypsilon points in a treatment session.
Dr. Carlos Alvarez, OMD, PA, BHSc, BBA

Post Stroke Acupuncture

Fig. 22. The abdominal diagnosis leads to the Ypsilon or cranial nerve points

Fig. 23. Neck diagnosis is used to find the treatment points of the patient

Cranial Nerves as it is posted in the picture

CN XII. Hypoglossal
CN. XI. Spinal Accessory
CN X. Vagus
CN IX. Glossopharingeal
CN VIII. Vestibulocochlear
CN VII. Facial
CN VI. Abducents
CN V. Trygesimal
CN IV. Trochlear/Extraocular
CN III. Oculomotor
CN II. Optic
CN I. Olfactory

Fig. 24 and 25. The cranial nerve points and brain points with Yin-basic-point A
XVII. NEEDLES TECHNIQUES

The needle size often mentioned in Chinese texts for scalp acupuncture is 26, 28, or 30 gauges, which is suitable for rapid twirling techniques. Needle stimulation technique (thrust and pulls method), a somewhat finer needle gauge of 32 or 34 is suitable for most cases, and the insertion length is approximately 1 cun. A 30 mm (1.2 inch) needle with a wound head is thought to be the best. The needle must be long enough so that it is not inserted up to the handle, but short enough that there will not be any bending during insertion and manipulation. The angle of insertion is typically 15–25 degrees. The patient should not feel pain, though there are some rarely used scalp points along the sides of the head, mentioned above, that typically produce pain.

The needle is inserted along the practitioner’s nail pressing the skin. Press besides the treatment zones with the nail of the thumb and first finger of the left hand, hold the needle with the right hand, and keep the needle tip closely against the nail. By avoiding the hair follicle, one can minimize pain during insertion. The direction of needling is usually based on the mapping of the body within the zone being treated: the needle is aimed (along the line of the zone) toward that portion of the zone most closely corresponding to the area of the body that is affected by the injury or disease.

Although the distance from the skin surface to the skull is very short, there are several tissue layers: the skin, hypodermis, galea aponeurotica and occipito-frontalis muscles, subaponeurotic space, and pericranium. The subaponeurotic space is a loose layer of connective tissue that is ideal for penetration during scalp needling: the needle slides in smoothly and does not cause pain, yet the desired needling sensation is strong. If the angle of needling is too shallow, the needle will penetrate the skin and muscle layers and it will be difficult to get a smooth insertion. Upon inserting the needles, stimulation is applied for 1–2 minutes. The needles are manipulated again after intervals of 10–15 minutes, for 1–2 minutes each time, throughout the duration of the patient visit, which may be as long as 2–3 hours. Sometimes, the interval between needle stimulation sessions is longer due to insufficient staff time when there are numerous patients, but usually within 30 minutes.

The needles should remain in the scalp for a minimum of 4 hours (except for treatment of acute symptoms, in which case, 0.5–1 hour is sufficient) and up to a maximum of 2 days. However, for children and weak adults, the time of retention should be shorter.
In the case of Dr. Zhu, he generally prefers long-term needle retention of 1–2 days. In contrast, the method of Dr. Jiao Shunfa, is advocating removing the needles after the basic manipulations.

There are two basic needling methods for manipulating the Qi, designated jinqi and chouqi, that have been elucidated by either practitioner. Both are based on ancient techniques and involve rapid, short distance movements. Jinqi (jin means move forward) is a tonifying, thrusting method. “Thrust the needle quickly with violent force, but the body of the needle does not move, or no more than 0.1 cun in. “Following the thrust, the needle is allowed to settle back to its original position”. Chouqi (chou means to withdraw) is a sedating, reducing method. It is based on forceful movement and a lifting motion. “Lift the needle quickly with violent force, but the body of the needle does not move or no more than 0.1 cun out” Again, after the pull, the needle settles back to its original position.

There is an article which mentions that he prefers using the small-amplitude, forceful lifting method, rather than the twirling method, because “it saves the operator effort and gives the patient less suffering.” It describes the preferred method as follows: “When inserted to a certain depth (about 1 cun), the needle is forcefully lifted outwards or thrust inwards. The direction (angle) of lifting or thrusting is the same as that of the insertion. The outward and inward force exerted on the needle should be sudden and violent as if it is the strength from the whole body of the practitioner. The lifting and thrusting amplitude should be small, no more than 1 fen (1/10 cun). After lifting and thrusting continuously for three times, the needle body is sent back to the original place (about one cun) and significant therapeutic effects will be obtained after the maneuver is repeated for 2–3 minutes.”

For the majority of neurological disorders, the tonification technique (jinqi) is used, with a series of rapid, very small-amplitude, in-out needle movements. The emphasis is on the forward movement, and then allows the needle to naturally pull back to the starting position. In cases of pain syndromes, the draining method (chouqi) is used, with the same kind of rapid, limited distance movements, but with the emphasis on outward movement, then allowing the needle to settle back in to the starting position. During the stimulations, it is important for both the practitioner and the patient to focus on the breath (this is an aspect of qigong therapy that is incorporated into the treatment). There should be no talking during needle stimulus: all attention is on the needling and its effects. The mental focus is on “directing the breath” to the body part that is to be affected.
Regarding repetitions of the stimulus, it was said: “Repeat many times until revival of QI and effect is achieved.” It usually does not specify manipulation duration, but rather bases the duration on observed response. It is claimed that by using the small amplitude manipulation method rather than the twirling method, one has the advantages of “large amount of stimulation, saving effort, less pain sensation, and strong needling sensation,” yet the therapeutic effects are achieved quickly. The method is also easy to master, though success may depend on the qi of the practitioner when utilizing the forceful but small amplitude manipulations. Before withdrawing the needles, it is recommended by Dr. Zhu manipulation of the needle again while the patient performs breathing exercises. When it is time to remove the needles, press the skin around the point with the thumb and index finger of the left hand, rotate the needle gently and lift slowly to the subcutaneous level. Body points are sometimes used as an adjunct to the scalp acupuncture therapy. In most cases, treatment is given every day (at least 5 days per week) for 1–2 weeks, then every other day for another 1–2 weeks, followed by twice per week treatment for as long as necessary. The frequency of treatment may be adjusted according to the severity of the condition and rate of improvement. According to either of the practitioners in this research for best results in treating hemiplegia due to stroke, scalp acupuncture should initially be performed twice per day. For other chronic conditions, daily treatment or every other day treatment is recommended for the initial therapeutic plan, to be followed-up by less frequent treatments once progress has been made.
XVIII. General Conclusions
Parallel Scalp Acupuncture can improve the state of cerebrovascular auto regulation, raise the velocity of blood, decrease the peripheral resistance, and increase the steady energy, total energy and the ratio of kinetic energy to total energy, decrease the ratio of oscillatory kinetic energy to total kinetic energy.

It is evident that after 30 years, scalp acupuncture is still evolving in its techniques and applications. In reviewing the Chinese literature, the investigative media reporters, the movies and video clips developed in relation with the progress and successes mentioned in the histories, I can draw certain general conclusions. Most authors suggest that utilizing scalp and body acupuncture together is a valuable method. The recommended frequency of treatment is high, from once or twice per day to once every other day, with a course of treatment typically involving 10–12 consecutive sessions, followed by a break of 2–4 days, sometimes 5–7 days. Needle insertion, manipulation, retention, and removal are approached with differing techniques. An expressed concern is to minimize pain for the patient and also to make the procedure practical for the acupuncturist. Thus, the frequently-mentioned method of rapid needle twirling may be replaced, in some cases, by other methods (including electrical stimulation) because of the potential for causing pain for the patient and fatigue and irritation for the acupuncturist. At least one study compared the efficacy of twirling (manual and machine-aided) and electrical stimulation and the conclusion was that both were useful. The twirling method with large needles remains a common practice in China.

In all cases, it is considered important to obtain an appropriate needling sensation (not pain); often, this is to be accomplished by utilizing needle manipulation at least two to three times in the course of a single session (for 2–3 minutes each time). The manipulation is usually rapid, with frequency of twirling in the range of 150–300/minute or electrical stimulation reported in the range of 150–700/minute. Total duration of needle retention in most cases is 20–45 minutes. Indications for scalp acupuncture include virtually all the usual indications for body acupuncture, but the main applications are stroke, paralysis, pain, and emergency situations. Contraindications for scalp acupuncture include very high blood pressure (220/120), heart disease, infection, post-operative scars in the acupuncture zone, some cases of pregnancy (mainly habitual miscarriage), persons who are extremely nervous, and infants whose fontanels have not closed.
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106. Media movie, 900 needles in reference to Dr. Xue’s Scalp Acupuncture

107. Media movie, East meets West, Future of Oriental Medicine

108. Media video clips parts 1, 2 and 3, conversation with Dr. Shi Xue-Min


110. Media video clip prepared by BBC named: The Science of Acupuncture _ BBC Documentary _ Traditional Chinese Medicine

111. Media video clip Yamamoto New Scalp Acupuncture and indications
XX. Author Disclaimer

Traditional Chinese Medicine it is a challenge to find and provide all the necessary available information related with trials, documentaries, media investigative reports, movies and patients experiences. This research will have a bias and will generate conclusions which will be or not used as support effectiveness about the post stroke treatment.