## Clinical Report

# Treatment of cerebral palsy with Chinese scalp acupuncture

### 中国头针治疗小儿脑瘫

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#### ARTICLE INFO

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#### ABSTRACT

**Objective** To observe the effect of scalp acupuncture on the treatment of children with cerebral palsy (CP). Methods Thirty-six children in the USA with cerebral palsy were treated with Chinese scalp acupuncture at the Neuroacupuncture Institute in Santa Fe, New Mexico, USA. Foot motor and sensory area, motor area, speech I area, speech II area, balance area, vision area, apraxia area, and I vision area were selected base on patient's clinical manifestation. Rotating manual stimulation was performed during each session of acupuncture. The retention of needles was 30 minutes. Results These 36 patients received between 3-20 treatments, 5 had complete resolution of their symptom, 14 cases a marked effect, 14 had some effect, and 3 patients experienced no improvement. No adverse events were reported. Conclusion Chinese scalp acupuncture in these 33 cases appears to be an effective treatment for patients with CP and should be considered as an adjunctive therapy for more CP patients. Chinese scalp acupuncture relieved many of these patients' symptoms, increased their quality of life, and reversed many physical disabilities. Some of the patients returned to a normal life. Those treatments have laid a foundation for research into the clinical application of Chinese scalp acupuncture in the treatment of CP.

**KEY WORDS:** Chinese scalp acupuncture; neuroacupuncture; cerebral palsy

Chinese scalp acupuncture is a contemporary acupuncture technique integrating traditional Chinese needling methods with western medical knowledge of the cerebral cortex (Figure 1). Scalp acupuncture has been shown to be effective for treating central nervous system disorders including from cerebral palsy, multiple sclerosis, strokes, Parkinson's disease<sup>[1]</sup> traumatic brain injury, and posttraumatic stress disorder to phantom pain and complex regional pain. The scalp somatotopic system appears to manifest the convergence of the central nervous system and the endocrine system. The scalp somatotopic system seems to operate as a miniature transmitter-receiver in contact with the central nervous system and endocrine

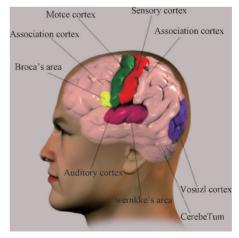


Figure 1 Lateral View of Left Hemisphere

system. By stimulating those reflex areas, acupuncture appears to have a direct effect on the cerebral cortex, cerebellum, thalamocortical circuits, thalamus, hypothalamus, and pineal body <sup>[2]</sup>. The scalp's unique neurologic and endocrinal composition makes it an ideal external stimulating field for internal activities of the brain. Using a small number of needles, scalp acupuncture can often produce remarkable results almost immediately, sometimes taking only several minutes<sup>[3]</sup>.

#### **CLINICAL DATA**

#### General Data

A total of 36 CP Children treated at Neuroacupuncture Institute located in Santa Fe, New Mexico, USA were recruited in the study from January 2014 to June 2016. There were 21 boys and 15 girls, aged between 1.5 and 13 years. All 36 patients suffered from CP before or during births from mild, medium to severe condition. The main manifestation included limb and truck paralysis, limbs spasm, aphasia, balance and coordination problem, delayed intellectual development, double vision, vision field loss. All 36 cases completed the 20 treatments.

Thirty-six patients with cerebral palsy were treated with scalp acupuncture.

Effective rate criteria is based on the Gross Motor Function Classification System (GMFCS). After 20 treatments, 5 cases (33.9%) had symptom resolution, 14 (38.9%) cases had a marked effect, 14 cases (38.9%) had some effect, and 3 (8.3%) cases had no effect. Total effect rate is 33 (91.7%). There were no adverse reactions.

Scalp acupuncture was associated with an improvement in the symptoms and signs associated with CP such as paralysis, aphasia, ataxia, vision filed loss, mental and physical disabilities. Five children with CP appeared to completely recover (Table 1), They were able to (1) Move paralyzed limbs and walk without balance problems; (2) Resolve aphasia resulting in normal speech; (3) Return to school with

normal cognitive function; (4) Resume functional and normal social lives with other children.

The Neuroacupuncture Institute is collaborating with the Burrell College of Osteopathic Medicine in the USA to study the treatment of cerebral palsy with scalp acupuncture. Chinese scalp acupuncture could have a significant role to play in the treatment and rehabilitation of patients with CP and with other central nervous system disorders.

#### TYPICAL CASES

Michael, a 6-year-old with cerebral palsy, came from Amarillo, Texas, with his parents to our clinic in Albuquerque, New Mexico, on March 10, 2011. His mother reported that he had never spoken an understandable English sentence and had almost no coordination in his upper or lower extremities. For example, his hands were so weak that he could not make an observable mark on paper with a pencil. He had become passive and initiated little or no communication. His low functional level had resulted in his being diagnosed with mental retardation and learned helplessness. Multiple medical doctors, including neurologists and ear, nose, and throat specialists, evaluated Michael, and the diagnosis was stroke in utero. Michael had been receiving speech therapy and physical therapy for several years with no noticeable improvement and had been a passive participant in kindergarten for 2 years because of his inability to write, speak, or take part in physical activities. The examination at our clinic showed no abnormal findings of his physical development or hearing. It was hard to understand him when he said his name, age, and birthday or when he counted aloud. His coordination was severely impacted. He could not point to his nose, touch his index fingers together, or kick his legs. His tongue was red with a thin white coating, and his pulses were wiry and slippery.

#### **Treatments**

Chinese scalp acupuncture and ear acupuncture were used to treat this patient. Primary scalp areas were Speech I and Speech III. The secondary scalp

Table 1 Five CP patients treated with Chinese scalp acupuncture with complete symptom resolution

Age	Sex	Diagnosis	Symptoms and Signs	Scalp area	Treatments	Result
1.5	Male	CP	Spasm, aphasia	FMS, Speech I, Tremor	3	Resolved
5	Male	CP	Ataxia, aphasia	FMS, Balance, Speech I	16	Resolved
6	Male	CP	Ataxia, aphasia, limb weak	FMS, Motor, Balance, Speech I, II	14	Resolved
12	Female	CP	Paralysis, visual field loss	FMS, Motor, Balance, Vision Tremor	18	Resolved
13	Male	CP	Paralysis, paralysis limb movement	FMS, Motor, Balance, Praxia	4	Resolved

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