
ORIGINAL ARTICLE

Acupuncture in Poliomyelitis

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Abstracts

The purpose of the study is to evaluate the result of acupuncture in the early and late stage of the disease.

From January 1974 to December 1977, a total of 276 paralytic cases due to post-poliomyelitis were treated with acupuncture, with the age between 3 months and 12 years.

Clinically and electromyogram examination were evaluated only on 146 cases. Of these, 78 cases (53,4%) showed marked improvement, 65 cases (44,5%) showed some improvement and only 3 cases (2,1%) showed no improvement.

There is a correlation between the result of the treatment and the duration of the disease. Of the 93 cases starting treatment within one month of the onset of paralysis, 71 cases (76,3%) showed marked improvement, while 22 cases (23,7%) showed some improvement or no improvement. Of the 53 cases starting treatment after one month of the illness, 7 cases (13,2%) showed marked improvement and 46 cases (86,8%) showed some improvement.

The technique of the treatment and applicable acupuncture points are described. The method is simple and without risk for the patient.

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Introduction

Acupuncture, a branch of Far Eastern Oriental Medicine has been proven to be effective for the treatment of many diseases and conditions. However, just like any other medical treatment, besides its advantages acupuncture has also many limitations and advantages (Kajdos, 1975).

Omura (1976) expanded the beneficial effects of acupuncture into 12 categories, one of which includes the improvement of the microcirculation and the effects on the nervous system.

In acupuncture treatment, the most effective results are often obtained when insertion of the acupuncture needle is accompanied by heaviness or tingling or electric shock-like sensation which spreads to the distant parts of the body. This sensation is known as "te chi" in Chinese, which means "obtaining chi". This "te chi" is also often accompanied by stimulation of the motor nerve fibers.

This paper deals with the beneficial effects of acupuncture in the treatment of paralytic poliomyelitis in children. In this study the evaluation of the results of therapy was performed in the early and late stages of the disease.

In Chinese terms, paralytic poliomyelitis belongs to "Wei" syndrome. "Wei" means weakness and impairment of the motion of extremities.

It is obvious that little information are yet available in the Western literature as

far as the utilisation of acupuncture in treating this disease is concerned.

Materials and Methods

Materials consisted of 276 patients with after-effects of poliomyelitis attending the outpatient clinic of the Subdivision of Acupuncture, Department of Child Health, Dr. Cipto Mangunkusumo General Hospital Jakarta, from January 1974 until December 1977.

There were 121 girls and 155 boys varying in age from 3 months to 12 years (Table 1).

Diagnosis of the after effects of poliomyelitis was based on neurological examinations and confirmed by electromyography. Only 146 patients were included in the further evaluation, as the other 130 patients did not come regularly or only came for less than one month (Table 2).

The method used in the treatment of these patients was classical acupuncture. The points used were chosen according to the principles outlined in Chinese acupuncture. The points should be in accordance with the side of paralysis and along the course of meridians. For the paralysis of upper extremities we used points mainly from Hand Yang Ming (Large Intestine, Small intestine and Three-Heater meridians) and for lower extremities we used points mainly from Foot Yang Ming (see Figure 1, 2), i.e. Stomach, Urinary bladder and Gallbladder meridians. The needle was inserted manually and the area was then stimu-

lated by twirling the needle back and forth. This procedure was conducted once everyday or every two days without afterward retaining the needle in the site of insertion.

A course of treatment lasted 3 months. If progress occurred the treatment was continued with another course after an interval of two weeks. In severe cases as many as 4 to 8 courses of treatment might be performed.

Points which are generally used in treating paralysis of the abdominal muscle are Urinary Bladder -21 (B-21), Stomach -21 (Sto-21), Stomach-25 (Sto-25); paralysis of the upper extremities are Ding-Chuan (Extra-17), Large Intestine-11 (LI-11), Large Intestine-4 (LI-4); drop wrist are Three Heater (TH-5), Small Intestine-6 (SI-6); paralysis of lower extremities are Extra-21, along L2-S2, Gall Bladder-30 (GB-30), Gall Bladder-34 (GB-34); excessive extension of knee joint are Urinary Bladder-40 (B-40), Liver-8 (Lv-8); drop ankle are Stomach-37 (Sto-37), Stomach-41 (Sto-41); extroversion of foot are Kidney-3 (K-3), Spleen-6 (Sp-6); introversion of foot are Gall Bladder-39 (GB-39), Urinary Bladder-60 (B-60).

Results and discussion

Distributions of sex and age of the patients are shown in Table 1. The peak incidence occurred between 1 and 4 years of age. Most of the patients were treated more than 3 months (Table 2).

The objective evaluation was based on neurological improvement including

follow-up of EMG examination in some of the patients.

Criteria for clinical and neurological evaluations were as follows:

1. Complete or nearly complete recovery (treatment within 1 month, without sequelae).
2. Marked improvement (treatment within 1 month).
3. Some improvement (treatment within 1 - 3 months).
4. No improvement (treatment more than 3 months).

Treatment results were based on 4 criteria as shown in Table 3. In evaluating the therapeutic effect, the patients were divided into 2 groups. The best results were achieved in patients where the duration of illness did not exceed one month. Time factor seems to be of great importance in acupuncture treatment too. Although this old Chinese method of healing has excellent results in even old cases, it seems that after an approximate delay of one month from the beginning of the illness to treatment initiation, the results are not as good. From 93 patients treated early in the course of the disease, i.e. less than one month, 71 patients (76,3%) showed marked improvement compared to 22 patients with some or no improvement (Table 4).

From our results described above as well as the results obtained by Jen Sheu Chung (1965), it can be concluded that the time factor in starting treatment play an important role. The sooner the patients get acupuncture treatment, the better the result will be.

In most cases (96,6%), the lower limbs are affected, either on one side only (67,8%); or on both sides (28,8%). Upper limbs are affected only in 5 cases (Table 5). This is in accordance with the findings of a follow-up study at the Subdivision of Pediatric Neurology, Department of Child Health, Dr. Cipto Mangunkusumo General Hospital, in Jakarta (Taslim, 1978). Recovery began after one to two months though in some patients cure started within a year, while in others where no cure at all occurred they retained sequelae such as muscular atrophy and eventual deformity.

It seems that in our experience sequelae of poliomyelitis of more than 2 years duration are difficult to cure. This finding is in accordance with the con-

clusion in the manuscript "An Outline of Chinese Acupuncture" (1975). This is due to necrosis of the cells of the anterior horn of the spinal cord though not all nerve cells are damaged by viral infection. In order to resuscitate the cells, strong stimulation to the nerves beneath the points of the affected limbs should be administered.

Acknowledgement

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TABLE 1: Number of children by age and sex

Sex		Age			Total
Male	Female	< 1 year	1-4 years	> 4 years	
155	121	60	206	10	276

TABLE 2: Number of children by duration of treatment

	1974 — 1977
< 1 month	130*
1 — 2 months	31
2 — 3 months	14
> 3 months	101
	276

* not included in the evaluation.

TABLE 3: Result of treatment

Complete recovery	: —
Marked improvement	: 78 (53.4%)
Some improvement	: 65 (44.5%)
No improvement	: 3 (2.1%)

TABLE 4: Relation between result and initiation of treatment

Duration of muscle weakness before treatment	Complete recovery or marked improvement	Some improvement or no improvement	Total
< 1 month	71 (76.3%)	22 (23.7%)	93
> 1 month	7 (13.2%)	46 (86.8%)	53

Table 5: Site of paralysis

Site of paralysis	Total	Percentage
one side lower limb	94	64.4
one side lower and one upper limb	4	2.7
left lower limb, right upper limb and N VII	1	0.7
both side lower limbs	38	26.0
both side lower limbs and one side upper limbs	3	2.1
tetraparesis	1	0.7
one side upper limb	5	3.4

FIG. 2: Urinary Bladder Meridian

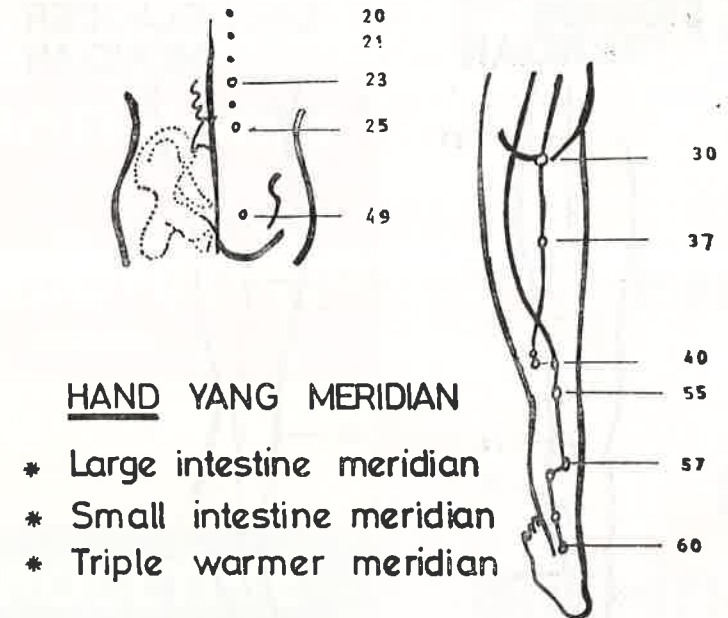
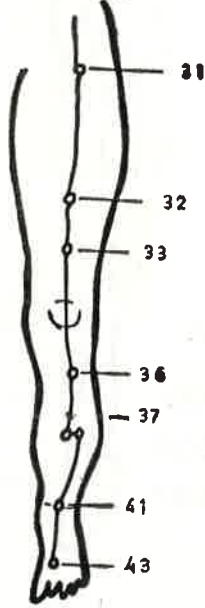


FIG. 1: Leg Foot Yang Ming Meridian

**STOMACH
MERIDIAN**



**GALL BLADDER
MERIDIAN**

