

Progress in Treatment of Spastic Cerebral Palsy with Integrated Traditional Chinese and Western Medicine

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Abstract: Cerebral palsy in children refers to the non progressive brain injury syndrome caused by various reasons in the early brain development within one month after birth. The symptoms are central motor and posture disorders. Some children also show mental retardation, language disorders and epilepsy. With the improvement of medical statistics, the number of children with cerebral palsy is increasing year by year. At present, there are more than 1 million children with cerebral palsy in China. The disease not only brings great pain to patients, but also brings great economic burden to society and families. Spastic cerebral palsy accounts for more than half of the disease. Spastic cerebral palsy is characterized by increased muscle tension, abnormal movement and limb development, which makes the children seriously deficient in self-care ability. Therefore, it is particularly important to explore the treatment of the disease.

1. Etiology and pathology

1.1 Etiology and pathogenesis of traditional Chinese Medicine

The Chinese medicine thinks that the cause of cerebral palsy is the deficiency of the past; Acquired disorder leads to common deficiency of the first day, deficiency of Qi and blood, and essence of acquired disorder is empty. Both of them promote the pathogenesis of cerebral palsy in children.

In traditional Chinese medicine, spleen and stomach are the source of Qi and blood; Liver and kidney are the foundation of storing essence and producing marrow "Gu Jin Yi Tong· five soft and five hard" [1] has a clear understanding of the etiology of this disease. It thinks that the pathogenesis of this disease is congenital deficiency of liver and kidney, deficiency of spleen and stomach, deficiency of Qi and blood. Lei Yanfeng [2] thinks that Blood stasis is the main pathological factor of the disease. The pathogenesis of the disease is blood stasis obstructing brain collaterals and blocking the normal development of the brain. Therefore, the location of the disease is mainly in the brain, but it involves the kidney, liver and spleen, among which the spleen and kidney are the most closely related [3]. Liu Shi [4] referring to the clinical symptoms of children with cerebral palsy in traditional medicine combined with modern medicine, children with cerebral palsy can be divided into five

types: hypotonic type: deficiency of spleen and kidney; hypotonic type: deficiency of spleen and kidney; Hand foot type: deficiency of liver and kidney; Tremor type: internal movement of liver wind; Ataxia type: lack of heart blood supply; Spasm type: wind phlegm blocking collaterals. Among them, spasmodic type is the most common.

1.2 Pathological factors of Western Medicine

In western medicine, the causes of cerebral palsy in children are complex, including genetic and acquired factors. The postnatal factors can be subdivided into three stages: prenatal, intrapartum and postpartum.

Genetic factors: in the group of children with cerebral palsy, some patients have family genetic history, such as cerebral palsy, epilepsy and mental retardation in their close relatives;

Postnatal factors: ① prenatal: including fetal dysplasia, parents with bad habits, mother's infection during pregnancy or exposure to radiation for a long time, prolificacy or multiple abortions, etc; ② Intrapartum: including factors such as hypoxia during delivery, premature delivery, physical injury to the fetus during delivery, leading to brain injury, etc; ③ Postpartum: including brain trauma, infectious diseases, high fever, asphyxia and other factors in postpartum neonatal care.

2. TCM Treatment

2.1 traditional Chinese medicine treatment

Infantile cerebral palsy belongs to congenital deficiency of Qi and blood, the essence of which is out of charge. Therefore, the treatment should focus on Regulating Qi and blood, filling essence and marrow. Lei Zhengrong [5] put forward that "Tiaoqi Hexue Decoction" should be used for treatment. Lin Xin [6] according to different types of treatment: ① liver and kidney deficiency, Qi and blood deficiency type: modified Liu Huang pill; ② Deficiency of both spleen and kidney, essence deficiency: Liuwei Dihuang Pill Combined with Buzhong Yiqi Decoction; ③ Heart kidney dystrophy type: Changpu pill and Bazhen decoction. Liu Huanrong divided children with cerebral palsy into four types: spleen and kidney deficiency, kidney deficiency and marrow deficiency, heart blood deficiency and blood stasis obstructing collaterals. For spleen kidney deficiency type, Bushen Dihuang Pill was used; for heart blood deficiency type, Changpu pill was used; for blood stasis type, qiangliyutan tablet was used.

In addition to the traditional oral Chinese medicine, Chinese medicine fumigation can also be used as an auxiliary therapy combined with conventional cerebral palsy rehabilitation therapy. Yuan Chong [7] selected 114 children with spastic cerebral palsy were divided into control group and treatment group, 57 cases in each group. The control group was treated with conventional rehabilitation therapy and core stability training, while the treatment group was treated with traditional Chinese medicine fumigation on the basis of the control group for one month. The results showed that: the effective rate of the treatment group was 94.7%, and that of the control group was 82.5%, which proved that Chinese herbal fumigation had obvious curative effect in the treatment of spastic cerebral palsy.

2.2 Acupuncture treatment

Cai Xiaying [8] and others selected 30 children with spastic cerebral palsy were treated with scalp skin acupuncture and body acupuncture. Scalp acupuncture includes brain three needle, wisdom three needle, temporal three needle and four spirit needle; The main body acupuncture points are Yintang,

Yaoyangguan, Hegu, Sanyinjiao, Mingmen, Taichong, Neiguan, Taixi, Xuanzhong, Jinsuo, Shenshu and Shenzhu, three times a week. Results: the effective treatment rate of 30 children with spastic cerebral palsy was 73.33%, and 93.33% of them were treated with Bushen Jianpi Decoction. Chen Yun [9] selected Thirty children with spastic cerebral palsy were divided into control group and experimental group, 15 cases in each group. The control group was treated with rehabilitation training, while the experimental group was treated with acupuncture and moxibustion on the basis of the treatment method of the control group: the scalp acupuncture was mainly composed of Sishencong, Baihui, Zhisanzhen and temporal Sanzhen, and the body acupuncture was Renzhong, Yintang, Neiguan, Zusanli, Sanyinjiao, Shenshu, Jinshou and salivation. Both groups were treated for 6 months. Results: the effective rate was 93.33% in the experimental group and 60.00% in the control group. Liu Lujia[10] and others selected 311 acupoint prescriptions and sorted them out, among which 197 acupoints were selected, among which the most widely used were Zusanli, Baihui, sishengcong, Hegu, Quchi, Sanyinjiao and Yanglingquan. It provides the basis for clinical acupuncture treatment of the prescription of point selection for children with cerebral palsy, and also proves that acupuncture has a prominent effect on the treatment of children with cerebral palsy.

2.3 Massage treatment

Massage of traditional Chinese medicine is to exert force on specific acupoints, meridians and other parts of the patient's body surface through manipulation, so as to achieve the purposes of dredging meridians and collaterals, balancing yin and Yang, promoting blood circulation and relaxing Qi, strengthening spleen and nourishing kidney.

By stimulating Baihui, Fengchi, Sishencong and Yifeng, Li Fang [11] finds it can promote the recovery of language function in children with cerebral palsy; Wang Qinqin [12] selected 40 children with spastic cerebral palsy and treated with massage at Tianmen point, Kanggong point and Taiyang point by professional manipulation. They were respectively treated with 24 times of opening orifices, pinching total tendons and dividing Yin and Yang; Qingxinjing (100 times), qingganjing (100 times), feijingbu (100 times), Wujing (200 times), Shenjing (200 times) and pijingbu (200 times) were treated with acupuncture at Baihui, Sishencong, Yintang, Guanyuan, Neiguan, Shenshu, Sanyinjiao, Ganshu, Pishu, Jinsuo and Yanglingquan. Results: 16 cases were markedly effective, 21 cases were effective and 3 cases were ineffective; Feng Zhaocai [13] uses five fingers to follow the three yang meridians and points to the neck to three finger method, and to both sides of the vertebral body along the neck, then, the children with spastic cerebral palsy were treated by pressing the head acupoints (Yintang, Baihui, etc.), head motor area, sensory area, kneading and pulling the sternocleidomastoid muscle on the affected side. Therefore, for the treatment of spastic infantile cerebral palsy with traditional Chinese massage has a certain curative effect and almost no side effects, which has a certain reference value in the adjuvant treatment of infantile cerebral palsy.

3. Western medicine treatment

3.1 Surgical treatment

Selective posterior rhizotomy (SPR) and selective peripheral nerve constriction (SPN) are the main surgical treatments for spastic cerebral palsy in children. SPR has become the most widely used surgical method for spastic cerebral palsy due to its high effectiveness, low muscle damage, no recurrence and rapid recovery. Zhang Wenrui et al. [14] Used multi-mode electrophysiological monitoring technology can greatly improve the accuracy of the proportion of spinal nerve transection. Lian min Xue [15] once collected collected 80 cases of children with spastic cerebral palsy who were treated by surgery. After comprehensive arrangement, we found that: in order to

better and more accurate surgical treatment for children, we should strictly judge and grade the degree of spasticity, lower limb activity ability and walking ability of children before surgery, and select SPR surgery for patients with extensive spasticity of joint muscles, For single joint muscle spasm patients with SPN surgery, this can be more conducive to the surgical treatment effect and postoperative recovery of patients.

3.2 Other treatments

3.2.1 Western medicine treatment

Earlier drugs used for the treatment of spastic cerebral palsy in children are: baclofen, diazepam, levodopa, etc., but these substances have strong sedative effect on children, with larger side effects, and the symptoms will rebound and worsen after drug withdrawal, so in recent years, the use of these drugs has been rare. Up to now, there is still no specific drug for spastic cerebral palsy, and the current drugs are mainly for rehabilitation. American doctors such as Koman used botulinum toxin in the treatment of spastic cerebral palsy, and achieved very good results. Botulinum toxin can effectively reduce muscle tension and provide sufficient time for the recovery of children. Through the analysis of 40 cases of children with spastic cerebral palsy treated with botulinum toxin, Yan Jiangtao and others [16] further confirmed the curative effect of botulinum toxin in the treatment of spastic cerebral palsy. Liu Yangyan and others [17] treated 45 patients with cerebroprotein hydrolysate, and the effective treatment rate was 86.67%. Cerebroprotein hydrolysate can reduce the risk of cerebral hypoxia, organize the production of free radicals in the brain, and effectively treat spastic cerebral palsy.

3.2.2 Modern rehabilitation therapy

At present, the modern rehabilitation therapy for spastic cerebral palsy includes Bobath therapy, Vojta induction therapy, hyperbaric oxygen therapy, wax therapy, electrical nerve stimulation therapy, iontophoresis therapy, etc. Wang Jun [18] used regular Bobath therapy to treat 45 children with spastic cerebral palsy for three months. The results confirmed the curative effect of Bobath therapy on the disease. Xue Yanli used Vojta therapy to treat 76 patients with this disease, and achieved good results. Li Hongtao et al. Used hyperbaric oxygen therapy to treat children with spastic cerebral palsy, and further affirmed the importance of hyperbaric oxygen therapy in the treatment of the disease. Li Yuxiu and others [19] used new wax therapy to treat 30 children with spastic cerebral palsy, and achieved good results. At present, the modern rehabilitation therapy mainly focuses on the intervention and adjuvant treatment of early children. It is difficult to completely treat spastic cerebral palsy by using this method alone. It should be supplemented by this method, and other targeted treatment should be given priority to the treatment of spastic cerebral palsy.

4. Conclusion

In recent years, the treatment of spastic cerebral palsy is constantly developing and innovating. Both traditional Chinese medicine and Western medicine are working together to solve the disease. Although many scholars spend a lot of time and energy on the research, they still have nothing to do in the face of severe cerebral palsy. Single use of traditional Chinese medicine, western medicine or rehabilitation therapy can not completely cure infantile cerebral palsy, so in the future research, integrated traditional Chinese and Western medicine treatment of infantile cerebral palsy will be the direction of human common research. It is also believed that with the joint efforts of countless doctors and scholars, this intractable disease will eventually be overcome by human beings.

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