Observation on the Curative Effect of Acupuncture on Child Tourette's Syndrome

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Abstract
Objective: To investigate the efficacy of earth-reinforcing and wood-reducing acupuncture for child Tourette's syndrome. Methods: Forty-five children with Tourette's syndrome were randomly allocated, according to a random number table, into an acupuncture group (23 cases) and a Western medicine group (22 cases). Points Zhongwan (CV 12) and Siguan were selected in co-operation with acupuncture of other routine points in the acupuncture group. Haloperidol was orally administered for routine treatment in the Western medicine group. Results: The cure rate was 65.2% in the acupuncture group and 31.8% in the Western medicine group. There was a significant difference in cure rate between the two groups (P<0.05). Conclusion: Earth-reinforcing and wood-reducing acupuncture has an exact curative effect on child Tourette's syndrome.

Key Words: Children; Tourette's Syndrome; Acupuncture Therapy

Clinical Data

1. Diagnostic criteria

In the light of the diagnostic criteria of CMMD-2-R and the relevant diagnostic criteria from the book named Practical Pediatric.

The onset begins before age 21. Most start between 2 and 15 years of age. It is characterized by multiple motor tics and one or multiple involuntary vocal tics. The symptoms are chronic with periodic fluctuation. The tics can be held back for minutes or for hours. The onset of illness is over 1 year. The involuntary motor tics and abnormal vocal tics can not be explained by other diseases.

2. General data

Forty-five TS patients were all from the Acupuncture Department of Changsha Hospital of
Traditional Chinese Medicine. They were divided into two groups according to a random number table. Of them, 23 cases were in the acupuncture group, with 17 males and 6 females, at the ages of 5-16 years old and an average of 10 years old. The shortest duration of illness was 12 months and the longest was 5 years. Twenty-two cases were in the Western medicine group, with 15 males and 7 females, at the ages of 7-14 years old and an average of 9 years old. The shortest duration of illness was 1.5 years and the longest was 7.5 years. There were no statistic differences in sex, age, duration of disease and condition of the disease in the two groups ($P>0.05$), therefore they were comparable.

**Therapeutic Methods**

1. **Acupuncture group**

   Acupoints: Zhongwan (CV 12), Sishencong (Ex-HN 1), Shenting (GV 24), bilateral points of Taichong (LR 3), Hegu (LI 4) and Fengchi (GB 20). Lianquan (CV 23) was added for vocal tics. Yingxiang (LI 20) and Suliao (GV 25) were added for nose twitching.

   Manipulation: The patient was asked to take a supine position. The selected points were disinfected routinely and inserted with the disposable and stainless filiform needles of 0.25 mm in diameter and 25 mm in length (produced by Suzhou Medical Appliance Factory). The inserting method of finger pressing was chosen. Zhongwan (CV 12) was punctured directly with twisting reinforcing method. The frequency of twisting was 200 times per minute at the angle of 90º. The points of Siguan were needled directly with twisting reducing method. The twisting frequency was 120 times per minute at the angle of 180º. The rest of the points were needled with mild reinforcing-reducing method. The needles were retained for 30 min and rotated once per 10 min with Zhongwan (CV 12) rotated for 1 min and Siguan for 3 min. The treatment was given once daily. Ten times make up a therapeutic course.

2. **Western medicine group**

   Haloperidol was administrated orally to treat this disease. A dose of 0.5 mg daily was administered when the child was 4 years old. A dose of 1 mg was administered when he or she was 5 years old. The treatment was given orally twice daily. The dose could be increased according to the relevant symptoms with a daily dose of 1.5-8 mg. At the same time the same dose of Benzhexol was administered to decrease the side effects.

**Therapeutic Effects**

1. **Criteria for therapeutic effect**

   - **Cure:** All the symptoms disappeared. No recurrence developed within 1-year follow-up.
   - **Effect:** All the symptoms disappeared or relieved. The recurrence might be induced by such factors as getting a cold, stress and exhaustion.
   - **No effect:** All the symptoms were not improved or the symptoms aggravated after treatment.

2. **Therapeutic results**

   The therapeutic results were compared before and after treatment (table 1). The two groups were compared after statistic analysis. There was a statistic significance of the cure rate in the two groups ($\chi^2 = 5.02$, $P<0.05$). There was no statistic significance in the comparison with the total cure rate ($P>0.05$). It might be related to the few observation cases.

**Discussion**

The modern medicine holds that this disease is closely related to D4 receptor of dopamine receptor and the etiology of the functional gene with psychosis. The Western medication with the function of inhibition of synthesis of dopamine and consumption of dopamine such as Haloperidol was often chosen. Yet its side effect will decrease the content of dopamine in the extra-pyramidal system to cause Parkinson's syndrome[2]. It is held in traditional Chinese medicine (TCM) that: "Stiffness belongs to the wind", "Dizziness caused by any types of wind belongs to the liver." It is said in ancient time that complicated diseases were all caused by phlegm. According to the clinical manifestations, its mechanism was mixture of the liver wind with phlegm fire. Spleen belongs to the earth and controls digestion and transportation. Liver, which belongs to the wood, has the function of soothing and regulating...