



Nocturnal Enuresis – Treatment with Acupuncture

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ABSTRACT

Nocturnal enuresis (bedwetting) is an involuntary wetting while sleep, which is considered normal up to the age of five. The etiology and the underlying physiological mechanisms of nocturnal enuresis are multifactorial. Acupuncture as part of the Traditional Chinese Medicine (TCM) is often used as a primary treatment for the treatment of nocturnal enuresis in children, and the positive effects have been published in several articles in the past decades. In our study are included 20 children, 14 male and 6 female, on age from 6 to 22. All children were treated with acupuncture in our clinic for TCM and acupuncture for nocturnal enuresis. Treatments were done indoor, with duration of 35-40 minutes both sides. With the acupuncture treatment we succeeded to help all our treated patients to stop bedwetting, have better sleep and quality of life with certain number of treatments. Average number of treatments is 6. Acupuncture was performed on the acupuncture points: DU20 (BaiHui), BL23 (ShenShu), BL28 (PangGuangShu), SiShenCong (3cm from the point BaiHui), RN6 (QiHai), GB20 (FengChi) and Du16 (FengFu).

Key words: Acupuncture, Traditional Chinese Medicine, Treatment, Children, Enuresis

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INTRODUCTION

Nocturnal enuresis or bedwetting is a common clinical condition that may appear in children. It is defined as emptying the bladder during sleep in children with a frequency of at least 2 times a week at the age of at least 5 years in the absence of congenital or acquired defects of the central nervous system. These children are at greater risk for psychosocial problems, loss of self-esteem and developing feelings of humiliation, guilt and shame. The etiology and the underlying physiological mechanisms of nocturnal enuresis are multifactorial. Three commonly proposed mechanisms for nocturnal enuresis are: excessive urine production at night, bladder hyperactivity and inability of the child to wake in response to the bladder sensations. Risk factors for the occurrence of nocturnal enuresis are: genetic predisposition (if one or both parents had the same condition), neurological disorders such as spina bifida and cerebral palsy, stress in childhood

(hospital, divorce, etc.), consuming caffeine (in juices, teas, chocolates), disruption of the function of antidiuretic syndrome, urinary tract infections, diabetes, etc. [1]. According to the symptoms, nocturnal enuresis may be monosymptomatic - without evidence of urination during the day and night urination at least twice a week consistently over three months, and non-monosymptomatic - when symptoms occur during the day (urgency, hesitancy, weak or interrupted urine flow, incomplete emptying, dysuria, etc.) [2]. According to the time of occurrence, night enuresis can be primary and secondary. Primary enuresis is when there is involuntary leakage of urine during sleep in patients who had not achieved a sustained period of dryness. Secondary enuresis develops after the patient has achieved a sustained period of bladder control at least six months, then started to wet. Primary enuresis often occurs due to developmental delay in children and resolves spontaneously over time [3].

Acupuncture is a procedure where certain parts of the body, where the points are located on the meridians are punctured with fine sterile needles for therapeutic purposes. As an integral part of the

Traditional Chinese Medicine, acupuncture involves complex theories to regulate the five elements (fire, earth, metal, water and wood), Yin and Yang, Qi, blood and body fluids. By stimulating certain points on the body, some disorders and disharmony of the organ systems are corrected, symptoms are relieved and the natural internal homeostasis is restored [4]. In the treatment of nocturnal enuresis, acupuncture points are selected so that will affect urination centers in the spinal cord and parasympathetic innervation of the urinary tract. With acupuncture stimulation, the levels of enkephalins and endogenous opioids are increased in the plasma and in the central nervous system. After the acupuncture stimulation is noticed an increase of beta-endorphins in human cerebrospinal fluid. Beta-endorphins in turn, may reduce bladder contractions. The therapeutic effect of acupuncture therapy can be achieved by suppressing the spinal and supraspinal reflexes which lead to contraction of the bladder. The clinical efficacy of acupuncture is reflected with increase of the maximum bladder capacity and suppression of the activity of detrusor muscle, and these functional changes may contribute to improve night enuresis [5, 6].

MATERIAL AND METHODS

In this study are included 20 children, 14 male and 6 female, on age from 6 to 22. All children were treated with acupuncture in our clinic for TCM and acupuncture in Skopje, Macedonia by a doctor specialist in acupuncture. All children were treated for nocturnal enuresis. Treatments were done indoor, with duration of 35-40 minutes both sides of the body. Some children have done the treatment every day, others every second day or once weekly. Two children have done the treatments with combination of cupping therapy and gua sha because of some secondary conditions. One child had renal agenesis. (born with one kidney) In the treatment were used fine, sterile, disposable acupuncture needles with size 0.25x25mm produced by Wuijiujiang City Medical & Health Material Co., LTD. Acupuncture was performed on the acupuncture points: DU20 (BaiHui), BL23 (ShenShu), BL28 (PangGuangShu), SiShenCong (3cm from the point BaiHui), RN6 (QiHai), GB20 (FengChi) and Du16 (FengFu).

RESULTS AND DISCUSSION

effective as a treatment for nocturnal enuresis in children.

With the acupuncture treatment we succeeded to help all our treated patients to stop bedwetting, have better sleep and quality of life with certain number of treatments. Number of treatment is also shown on table 1. 8 children have done 1-5 treatment, 10 children haven don 6-10 treatments and 2 children have done more than 10 treatments.

Table1: Number of treatments made

Number of treatments	Number of patients
1-5	8
6-10	10
>10	2

On table 2 are shown the age groups and the number of children in each age group. Children were mostly on age from 6 to 10. There were more male than female patients.

Table 2: Age groups

Age groups	Number of patients
<5	/
6-10	11
11-15	6
16-20	1
>20	1

According to the theory of Traditional Chinese Medicine, the creation and release of urine is associated with the lungs, kidneys, spleen and bladder and is seen as a problem with the fluids in the body. It is thought that the spleen is the root where problem with fluids start and lungs where it is collected [7, 8]. The pathogenesis of the occurrence of nocturnal enuresis is the lack of Qi energy in the lungs, spleen and kidneys, while the bladder is not controlled by Qi energy. Through various forms of stimulation of the points on the meridians located on certain parts of the body, imbalances and instability between Zang Fu organs and corrected, thus improving symptoms of nocturnal enuresis and maintain stability of the internal state. According to a survey made for nocturnal enuresis, it concluded that acupuncture has a much better clinical effect than pharmacological treatments and placebo treatments [5]. In another study done for the treatment of nocturnal enuresis with acupuncture, including 50 subjects, 31 male and 19 female, the patients achieved an efficiency of 76% in 6 months and 92% in a year [9]. The treatment can be done with laser acupuncture [10, 11] or electro-acupuncture [12] which is also proved to be

CONCLUSION

Acupuncture as part of the TCM has a positive effect in the treatment of nocturnal enuresis in children, regulating the flow of Qi energy and blood and restoring complete balance to the internal state of the body.

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