

## Acupuncture for nocturnal enuresis – statistical analysis

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### Abstract

Nocturnal enuresis also called nighttime bedwetting is a problem that occurs in children over 5 years of age, it means urinating without intention during sleep. It is not a serious health problem as it is part of a child's development, but can be upsetting for children and parents. Around 20% of children have problems with nighttime bedwetting at age 5, and up to 10% still do at age 7. Among teenagers, the problem of bedwetting is represented by about 1 to 3%. The condition affects the boys more often than girls. According to Traditional Chinese Medicine theory, the production and excretion of urine is connected with the lungs, kidneys, spleen and bladder, and the condition is considered as an issue with the fluids in the body. TCM accepted explanation for the pathogenesis of nocturnal enuresis is - a lack of 'qi' in the kidneys or 'qi' deficiency in the spleen and lungs. In this research paper are included 5 patients with nocturnal enuresis, 4 boys and 3 girls, on the age from 11 to 14. One of the parents of each of the patients had the same problem. All of them were treated with acupuncture once weekly with a duration of 30 to 45 min. Acupuncture gives positive effect in treating nocturnal enuresis.

**Key words:** Nocturnal enuresis, statistic, acupuncture, TCM

### Introduction

Nocturnal enuresis also called nighttime bedwetting is a problem that occurs in children over 5 years of age, it means urinating without intention during sleep. The most common urologic complaint in pediatric patients is nocturnal enuresis. Nocturnal enuresis is divided to primary and secondary and classified as monosymptomatic or non-monosymptomatic. Primary enuresis refers to the condition where a child has not been dry for at least six months, while secondary enuresis is characterized by an onset after a period of at least six months of nocturnal dryness. [1]

The occurrence of bedwetting is not completely understood, but it is believed to be due to certain factors like: a small bladder, a hormone imbalance, urinary tract infection, sleep apnea, diabetes, a problem in the urinary tract or nervous system. Bedwetting may affect anyone but it is seen mostly in boys. A few factors have been connected with larger risk of bedwetting, including: family history, stress, anxiety, attention-deficit or hyperactivity disorder. Bed-wetting without a physical cause does not result in any health risks but is frustrating and can create some issues for the child like: loss of opportunities for social activities, embarrassment, which can lead to low self-esteem, nappy rash on child's bottom and genital area. [2]

Available treatment options for nocturnal enuresis include wetting alarms, lifestyle changing, medication and acupuncture as a complementary treatment. Acupuncture is an well organized therapy method that originated in ancient China. As the most important component of TCM, acupuncture develops positive therapeutic effect by stimulating the

acupoints. This process involves the establishment of a complex regulating network system through the flow and exchange of energy and information within meridians and collaterals. The meridian, in Traditional Chinese Medicine (TCM), serves as the "channel" through which Qi and Xue (TCM's concept of blood) flow. It connects Zangfu (viscera in TCM), the body surface, and various parts of the human body, thereby regulating overall bodily functions. For the uses od the treatment of nocturnal enuresis, acupuncture points are carefully selected to affect the centers for urination in the spinal cord and parasympathetic innervation of the urinary tract. Acupuncture stimulation leads to increased levels of enkephalins and endogenous opioids in both the plasma and the central nervous system. [3,4]

**Material and methods**

In this study are included 5 children, 3 boys and 2 girls on age from 9 to 14. These children inherited the problem from one of their parents. All children were treated with acupuncture in a center for Traditional Chinese medicine and acupuncture in Skopje, North Macedonia by a doctor specialist in TCM. All children were treated for nocturnal enuresis. Treatments were done indoor, with duration of 35-40 minutes. In the treatment were used fine, sterile, disposable acupuncture needles with size 0.25x25mm. Acupuncture was performed on the acupuncture points: BL23 (ShenShu), BL28 (PangGuangShu), DU20 (BaiHui), SiShenCong (3cm from the point BaiHui), GB20 (FengChi), RN6 (QiHai), and Du16 (FengFu).

**Results and discussion**

With acupuncture treatment as a part of TCM the patients were able to have better sleep, better quality life, to reduce bed-wetting event to completely stop it. On table 1 are shown the age groups and the number of patients in each group. The most numerous is the group from 10 to 15 years old. There were more boys than girls ie 4 boys and 3 girls.

*Table 1. Age groups*

Age group	Number of patients
<5	0
6-10	1
11-15	6
16-20	0

*Table 2. Number of treatments*

Number treatments	Number of patients
<5	2
5-10	3
11-15	1
16-20	1

From table 2 it can be noticed that two patients needed less than 5 therapies, three patients from 5 to 10 therapies and two patients who did more than 10 therapies.

Enuresis, in Chinese medicine, is regarded as a disorder related to water fluids. The three primary viscera responsible for controlling water fluids in the body are the lungs, spleen, and kidneys. The upper source of water, responsible for downbearing and diffusing water fluids through the three burners' passageways, is the lungs. The descent and free flow of lung qi facilitate the transportation of water fluids to the lower burner, where they are excreted by the kidneys and bladder. The spleen, on the other hand, governs the movement and transformation of water fluids. Specifically, it is the spleen that directs the clear part of water fluids, ingested by the stomach, up to the lungs for distribution throughout the body. The kidneys have a pivotal role in overseeing the water fluids throughout the entire body, with a particular focus on regulating the bladder's qi transformation and the opening and closing of the urethra. If, for any reason, one or more

of these viscera experience vacuity and insufficiency or if their function is hindered by the presence of evil qi, it can compromise their control over water fluids, potentially leading to enuresis. For the treatment of nocturnal enuresis, Traditional Chinese Medicine (TCM) employs various approaches, including herbal medicine, acupuncture, moxibustion, and Tuina. Numerous clinical studies have demonstrated their effectiveness, highlighting their significant potential in addressing this disorder. [5, 6]

## Conclusion

Acupuncture as a part of TCM gives positive results in treating nocturnal enuresis/bed-wetting in children and teens. Acupuncture regulates the flow of energy Qi and restores the complete balance of the body.

## References

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