

Korean Hand Therapy Reduces Incidence of Bedwetting in Children

Editorial Staff

Enuresis - also known as bedwetting - is a common occurrence in childhood, affecting between 15 percent and 20 percent of all children age five and younger. Most cases of bedwetting occur at night, while a child is asleep. Although there is no single cause behind bedwetting, several factors that may promote enuresis have been identified, including stress, changes in sleep patterns, nervous system disorders and hormonal imbalances. While most incidents of enuresis resolve by the time a child reaches adolescence, children who constantly wet their beds may suffer feelings of shame and low self-esteem.

Treatment of enuresis usually consists of behavior modification, drugs, or alarm systems that ring a bell or other signal when a bed gets wet. Although they are widely used, these treatments are considered controversial because they are not always successful. For instance, desmopressin, the drug most commonly used to treat enuresis, has been shown to be effective in preventing bedwetting in only 5 percent to 22 percent of children,¹ and can lead to rare - but potentially serious - side-effects. Many children (and parents) are also resistant to using alarms, as they are fairly complex to operate, may wake up other family members, and do not work until the child has already wet the bed.

One of the lesser-known forms of treatment for enuresis is acupuncture. Various types of acupuncture have been studied, with success rates comparable to those seen in more traditional therapies. One type that has shown considerable promise in treating enuresis is Korean hand therapy (KHT), a system of acupuncture in which specific points on the hand correspond to meridians and body organs. KHT is particularly useful in treating children because the points can be stimulated not just with needles, but with metals, magnets or electric current, without puncturing the skin.

To measure the effects of Korean hand therapy and its effect on bedwetting, an investigator in Baltimore, Maryland enrolled 33 children between the ages of five and 13 into two study groups.² All of the children met the diagnostic criteria for primary nocturnal enuresis, and reported wetting their beds an average of at least three nights a week. The author used a device called an E-beam machine to treat the children, which delivered a low-intensity electromagnetic current through cords attached gently to points on the hand.

Patients were randomized to receive acupuncture with the E-beam using either functioning (group one) or nonfunctioning (group two) cords. The study employed a crossover design, such that after completing five consecutive treatments with the initial set of cords, the children received another set of five treatments using the other set of cords.

KHT points associated with the kidney, bladder and cerebral function were stimulated with the E-beam

for 20 seconds. Points stimulated included hand back *shu* points for the kidney and bladder; hand *mu* points for the kidney and bladder; a *shu/yuan*/source point for the kidney; a bladder *jing*/source point; and points on the hand *du-mo* extraordinary meridian.

Prior to the start of the study, the author collected demographic information on the children, including demographic characteristics, family history of enuresis, and average number of nights the child wet the bed. During each treatment session, the children (and their parents) were asked to document the number of completely dry nights, and any possible adverse effects experienced since the most recent treatment. To track the long-term effects of treatment, each patient was contacted three months after completing the study and asked to report the average number of dry nights attained during the previous three weeks. Patients who remained dry for a minimum of 90 percent of the nights were considered cured.

A total of 26 children (14 male, 12 female) completed the study. The average age of a study participant was 6.5 years; 69 percent had a family history of bedwetting, and 23 percent had been treated unsuccessfully with desmopressin prior to taking part in the project.

Children in both groups showed an improvement in the duration and frequency of bedwetting from the start of the study through the end of the first treatment period. Ten of 11 patients who received real treatment with the E-beam reported an increase in the number of dry nights, while 12 of 15 placebo patients experienced similar improvement. However, children treated with the E-beam reported a higher average degree of improvement than those who received a placebo (24 percent vs. 10 percent).

Similar improvements were seen during the second treatment period, in which patients who received real acupuncture were given a placebo (and vice versa). Improvements were seen in 10 of 15 real treatment patients, whereas only six of 11 placebo patients reported improvement. As in the first phase of the study, a higher average degree of improvement was seen in E-beam patients compared to those receiving a placebo (10 percent vs. 4 percent).

Of the 26 children who completed the study, 14 (53 percent) were considered cured three months after the study's conclusion. There were no reports of adverse effects by any children in either group attributed to treatment with the E-beam machine.

Given that the success rate for most bedwetting therapies ranges between 20 percent and 75 percent, the study's author was satisfied with the cure rate experienced with Korean hand therapy and E-beam stimulation.

"The 53 percent cure rate reported three months after the conclusion of this study falls within the range of clinical responses considered favorable for traditional treatments," the author noted. "... these results suggest that KHT is a reasonable treatment option for primary nocturnal enuresis in children."

It is generally accepted that outside influences can have a direct effect on the efficacy of certain treatments for enuresis. The drama associated with a bedwetting alarm system, for instance, is believed to be partly responsible for its effectiveness, even though it does nothing to physically stop a child from wetting his or her bed. The author of the study acknowledged this effect, but also noted that real Korean hand therapy appeared to have "a direct effect" on the degree to which treatment of enuresis was successful:

"The improvement noted in both groups, regardless of the functional status of the E-beam machine

cords, affirms the beneficial influence of the subjective factors introduced by KHT. However, above and beyond this, actual hand therapy did have a distinctly favorable effect: group one (treatment with real cords between baseline and period 1) had a higher improvement rate, and group two improved significantly during the second period (upon switching from fake to real cords)."

"This study suggests that KHT offers a safe and reasonable treatment option for childhood primary nocturnal enuresis," the author concluded. "The beneficial effect appears to be the result of both subjective factors introduced by the hand therapy experience, and a direct effect from the electromagnetic stimulation of hand points."

References

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