

Treating Paediatric Bed-wetting with Chinese Medicine

Abstract

Most children achieve night-time dryness by the age of four or five, but it is estimated that 20% of five-year-olds experience nocturnal enuresis (bed-wetting). In addition, 3% of 12-year-olds and 1% of 15+ year olds continue to suffer from bed-wetting. Research shows that only 38% of parents seek medical assistance. Unfortunately, doing nothing is the worst thing a parent can do when dealing with their child's nocturnal enuresis because the child only has a 15% chance of growing out of their problem by their next birthday. Nocturnal enuresis is one of the problems most frequently addressed by paediatric specialists of TCM today and is often treated successfully. This article introduces the reader to nocturnal enuresis according to both modern and traditional Chinese medicine with reference to a single case history.

One of my fondest memories of childhood is of sleepovers at the house of my best friend. Unfortunately, what I recall as a joyful childhood rite of passage can be a painful and humiliating memory for people who suffered from paediatric nocturnal enuresis. As a specialist in Chinese medical paediatrics, bedwetting or nocturnal enuresis is one of the conditions I see most often. Primary nocturnal enuresis (PNE) is the most common form. PNE is a diagnosis reserved for individuals who have been able to control their bladders during the day (for at least 6-12 months) but have not been continuously dry at night for (at least) a six month period since infancy. Most children achieve nighttime dryness by the age of four or five, but it is estimated that 20% of five-year-olds experience nocturnal enuresis. In addition, 3% of 12-year-olds and 1% of people over 15 years continue to suffer from bed-wetting.

So what treatments do the majority of parents use to solve this problem? None. Research shows that only 38% of parents seek medical assistance for this problem. Unfortunately, doing nothing is the worst thing a parent can do when dealing with their child's nocturnal enuresis because the child only has a 15% chance of "growing out" of their problem by their next birthday.

Despite numerous studies on primary nocturnal enuresis, the cause of this disease remains elusive to modern medicine (with only 1-3% of cases having an identifiable cause). On the other hand, Chinese medicine [CM] has established what underlies bed-wetting and, over the last two millennia, has developed many effective treatments for this disease. Research demonstrates that Chinese medicine is the best treatment for children who experience enuresis¹. A review of Chinese medical journal articles on nocturnal enuresis (including several comparison

studies) reveals that CM has consistently been proven to be more effective than modern medications yet avoids the side effects that are commonly experienced with the modern medical approach. While many diseases are treated most effectively by using one particular modality such as tuina, acupuncture, Chinese herbal medicinals (external or internal) or dietary therapy, in the treatment of nocturnal enuresis all forms of treatment can be effective. In clinic, these various treatments may be used by themselves or in combination. For stubborn cases of enuresis, these treatments can also be used in tandem with modern Western medical approaches, such as alarm therapy.

Research demonstrates that Chinese medicine is the best treatment for children who experience enuresis

Chinese medicine's tried and true secret to success with enuresis is that each and every treatment is tailored to the unique needs of the specific patient and focused on the fundamental cause of the disease. Treatment is geared towards improving the child's ability to wake up when their bladder is full and to decreasing the child's need to urinate at night. By treating the root of this embarrassing disease, Chinese medicine can both stop the enuresis and also prevent future diseases that are related to the same disease mechanism. With the right treatment, children and their parents will see improvement in this condition within a matter of days or weeks.

In clinical practice, I use Chinese herbal medicine as my main modality when treating enuresis and sometimes employ tuina or acupuncture (only in an older child) as an adjunct therapy. Below is an example of one child I successfully treated using Chinese herbal medicine. Keep in mind that when I treated

By: Rob Helmer

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this patient I was using extract powders that were mixed into boiling water and drunk by the patient (I currently only prescribe raw herbs). These extract powders ranged from 5-to-1 to 10-to-1 in concentration, depending on the ingredient. The dosages given in the case example below are the daily raw herb equivalents. All of my patients with chronic conditions return for their second visit four days after beginning treatment and then come in once a week for 4-6 weeks. If further treatment is needed, the interval between clinical visits is lengthened to every ten days and eventually to every two weeks.

Case example

Last July, Dustin's mother, Rosa, brought him to see me after reading a newspaper article that discussed how I use CM to treat enuresis. Dustin was a very active nine year old with a slim build (70 lbs). His days were filled with playing sports, especially ice hockey. Dustin had suffered with enuresis from infancy, and at the age of nine was wetting the bed five times per week. His mother described him as a 'deep sleeper'. Other than his older brother, there was no family history of enuresis. Rosa noticed her son's nocturnal enuresis was worse when he was over-tired and when he drank too much fluid in the evening. Like many patients with enuresis, Dustin had very few accompanying symptoms. However, he did have a history of recurrent ear infections and had been prescribed antibiotics two to three times per year since his first year of life. Dustin urinated three to four times per day. His urine was light yellow and he usually had a bowel movement every two days. Dustin's pulse was forceless and his tongue was pale.

Pattern discrimination

Lung-Spleen qi vacuity, Spleen-Kidney yang vacuity and Kidney qi failing to secure and astringe to control urination.

Treatment principles

Fortify the Spleen and boost the qi, supplement the Kidneys, warm yang and secure the essence to control urination.

Formula

Huang Qi (Astragali Radix) 10g
 Dang Shen (Codonopsis Radix) 5g
 Tu Si Zi (Cuscutae Semen) 5g
 Bu Gu Zhi (Psoraleae Fructus) 5g
 Shan Yao (Dioscoreae Rhizoma) 5g
 Lu Jiao Shuang (Cornu Cervi Gelatinum) 5g
 Sang Piao Xiao (Mantidis Ootheca) 5g
 Wu Wei Zi (Schisandrae Fructus) 3g
 Ji Nei Jin (Gigeriae galli Endothelium corneum) 10g
 Jiu Cai Zi (Allii tuberosi Semen) 3g
 Stir-fried Gan Cao (Glycyrrhizae Radix) 3g
 Stir-fried Ma Huang (Ephedrae Herba) 3g

In addition to the herbal formula, I suggested that Rosa wake her son once during the night to urinate, avoid giving him fluids after supper and eliminate and reduce the intake of dairy, citrus fruit and its juices, and the 3 C's (chocolate, carbonated drinks and caffeine). The intake of these items has been shown through research to increase the amount of urine produced, therefore worsening enuresis. During the first six weeks of taking the formula (with minor modifications), Dustin wet his bed on only four occasions. These occasions usually correlated with drinking an excessive amount of fluids after supper and/or being extremely tired (due to too much hockey). After six weeks, Dustin was able to sleep for over nine hours without wetting his bed and no longer needed his mother to wake him up during the night. At this point I began to wean Dustin from treatment, and after one month he was no longer receiving any medicine. During the last month of treatment (with a reduced dosage), he had one reoccurrence due to drinking excessive fluids before going to bed. I reiterated to Dustin and his mother the importance of limiting fluids after supper and discharged him. Follow-up conversations over the next five months showed only a couple of reoccurrences (due to the above lifestyle factors) and both mother and child were very happy with his ability to be consistently dry at night.

Discussion

In Chinese medicine, enuresis is considered a disorder of water fluids, and the three main Chinese medical viscera involved are the Lungs, Spleen and Kidneys. The Lungs are the upper source of water, which will descend and diffuse water fluids through the water passageways of the three burners. It is the descent and free flow of the Lung qi that transports water fluids to the lower burner for excretion by the Kidneys and Bladder. The Spleen governs the movement and transformation of the water fluids. In particular it is the Spleen that sends the clear part of water fluids taken in by the Stomach up to the Lungs for distribution around the body. If the Spleen qi fails to ascend these fluids, they tend to pour downward to the lower burner where they overflow from the Bladder. The Kidneys govern the water fluids of the entire body but especially control the Bladder's qi transformation and the opening and closing of the urethra. If, for any reason, one or more of these viscera become vacuous and insufficient or their function is inhibited by the presence of pathogenic qi, their control of water fluids may be impaired and enuresis may result. Further, if water fluids collect and transform into dampness, these damp pathogens may seep downwards to become depressed in the lower burner where they inhibit the free flow of the yang qi.

Further, in Chinese medicine, children are considered both physically and physiologically immature. Chao Yuan-fang, in his book *Zhu Bing Yuan Hou Lun* (Treatise on the Origins & Symptoms of Various Diseases) stated, "The

five viscera and six bowels are made but not complete, ... are complete but not strong” Similarly, Qian Yi, China’s first great paediatrician, in his *Xiao Er Yao Zheng Zhi Jue* (A Collection of Essential Paediatric Patterns & Treatments), said, “The skin and hair, muscles and flesh, sinews and bones, brain and marrow, the five viscera and six bowels, the constructive and defensive, and the qi and blood of children as a whole are not hard and secure.” This means that the Lungs, Spleen and Kidneys are all immature and, therefore, intrinsically vacuous and weak. This is why babies and young children tend to present so many signs and symptoms of dampness, phlegm and turbidity, i.e. untransformed water fluids. In particular, the Spleen is not fortified or mature until around six years of age, and the Kidneys do not become exuberant until puberty. In addition, it is said in Chinese medicine that, “The Spleen is the root of phlegm engenderment; the Lungs are [merely] the place where phlegm is stored.” This helps explain why children’s Lungs are so susceptible to the accumulation of phlegm dampness which hinders and obstructs the descent of the Lung qi. It is the inherent immaturity of the Lungs, Spleen and Kidneys that make enuresis a primarily paediatric complaint.

However, anything that damages and causes detriment to these three viscera can also cause formerly mature organs to become vacuous and insufficient. Factors which damage the Lungs include excessive grief and sorrow and the chronic presence of pathogenic qi, including wind pathogens, phlegm and dampness. Signs and symptoms of Lung qi vacuity include spontaneous perspiration, a weak voice, rapid breathing and easy contraction of wind pathogens. Factors that damage the Spleen include foods which engender excessive fluids, such as sweets, dairy products, and excessive oils and fat, uncooked, chilled foods, excessive fatigue, excessive worry and anxiety, excessive use of antibiotics, chronic respiratory and/or digestive diseases and insufficient physical exercise. Signs and symptoms of Spleen qi vacuity include fatigue, lack of strength, somnolence, lack of warmth in the hands and feet, torpid intake, loose stools, a fat tongue with teethmarks on its edges and a fine, forceless pulse. In Dustin’s case it was apparent that the main pattern was Lung-Spleen dual vacuity due to low immunity, a history of antibiotics, irregular bowel movements, his forceless pulse and the worsening of his condition with fatigue. Factors damaging the Kidneys include excessive fear and fright, excessive use of steroids, excessive use of anti-asthmatics, inappropriate use of antidepressants, premature sex and artificial sweeteners. Signs and symptoms of Kidney vacuity include frequent urination, nocturia, enuresis, low back and knees soreness and limpness, and ‘the five softs and the five slows’, i.e. abnormally slow development. If there is Kidney yang vacuity, then there will also be a pale tongue, a deep, slow pulse and fear of cold. If there is Kidney yin vacuity, there will also be a red

facial complexion, hot hands and feet and night sweats. The Kidney’s involvement in this case was confirmed by the chronic and persistent nature of Dustin’s enuresis and his pale tongue.

It is also important to acknowledge the role the Heart plays in enuresis. The Heart spirit is nothing other than an accumulation of the Heart qi nourished and enriched by blood and Kidney essence. This Heart qi is a result of the clear qi upborne by the Spleen. Therefore, because of inherent Spleen vacuity in children, there tends to be an inherent Heart qi and blood vacuity which is compounded by the inherent Kidney vacuity we talked about above. This is why it is said in Chinese medicine that children’s spirits are unstable and easily disquieted. When the spirit is quiet and tranquil, Heart fire or yang moves downward to the Kidneys to transform cold water. But, when the spirit is disquieted, it tends to stir frenetically and counterflow upward. Hence, Heart fire and Kidney water fail to interact, and this may also lead to the Kidney qi failing to secure and astringe and control urination. In this case, Kidney vacuity is the proximate cause of enuresis, but a disquieted Heart spirit is a complicating or even causative factor.

Before moving on to the explanation of the medicinals used in Dustin’s formula, I would also like to explain why deep sleep is such a common part of paediatric enuresis. Consciousness in Chinese medicine is a function of the clear yang qi. We wake when the clear yang qi is upborne to the Heart, which allows the spirit to flow freely to and through the sensory orifices to connect with the outside world. We go to sleep when this clear yang qi retreats and descends to the inner and lower parts of the body away from the Heart. The clear yang qi is a by-product of water and foods transformed by the Spleen and catalysed by the Kidneys, and we have seen that the Spleen and Kidneys are inherently vacuous and weak in children. In addition, when the yang qi arises to the Heart, it must penetrate any phlegm, dampness and turbidity before it can flow freely to and through the orifices, and infants and children have more phlegm, dampness and turbidity than adults typically do. Thus, the abnormal deep sleep of the paediatric enuresis patient is typically some combination of Spleen-Kidney vacuity and phlegm, dampness and turbidity.

Within Dustin’s formula, Huang Qi, Dang Shen and Gan Cao supplement the Lung, boost the qi and fortify the Spleen. Tu Si Zi and Bu Gu Zhi supplement the Kidneys and invigorate yang, secure the essence and reduce urine. Bu Gu Zhi also warms the Spleen. Shan Yao supplements all three jiao (Lung, Spleen, Kidney) and reduces urination. All products derived from deer velvet and deer antlers have the function to supplement the Liver and Kidneys, supplement Kidney yang and boost essence and blood. I used Lu Jiao Shuang in Dustin’s case because this was the only deer antler product carried by

the extract powder company I was using when treating this patient. This medicinal's ability to supplement the body is less than the other deer antler products but it is not as cloying and has a stronger restraining and retaining effect. Jiu Cai Zi is not so commonly used but does appear in some doctors formulas to treat enuresis and I included it in this patient's formula to warm the Kidneys, supplement yang and secure the essence. Sang Piao Xiao, Wu Wei Zi and Ji Nei Jin when used together boost the Kidneys, assist yang, secure the essence and restrain urine. Since Dustin was a deep sleeper I included Ma Huang in his formula. Ma Huang is an empirical herb used by my teacher to help increase a deep-sleeping child's ability to wake up when their Bladder is full.

I have treated many patients with this condition, with good-to-excellent results in most cases. If you have children in your practice, which I hope you do, I encourage you to consider treating paediatric bed-wetting. You will save children a good deal of embarrassment, make parents' lives a good deal easier, and allow more children the happy memories of sleepovers with their friends. ■

Born and raised in Canada, **Rob Helmer** graduated in 1998 from the Institute of Traditional Chinese Medicine in Toronto, Ontario. During his training, Rob studied all aspects of TCM including

Chinese herbal medicine, acupuncture, dietary therapy and Chinese massage (tuina). His extensive post-graduate studies have included courses in children's health, dermatology and digestive diseases. Since graduating, Helmer's clinical experience has involved multiple trips to China to study with famous TCM paediatricians as well as studying in the United States and Germany. In February, 2006 Blue Poppy publishing published Helmer's first book, *Treating Pediatric Bed-wetting with Acupuncture and Chinese Medicine*. Rob Helmer relocated to Hove, England in 2006 to accept a position as the paediatric specialist at The Clinical Centre of Chinese Medicine in Hove, England.

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