

Japanese Acupuncture - Current Research

Japanese Traditional Medicine Text (13) – Pediatrics

Tomofumi Ozaki

Associate Professor of Faculty of Health Sciences
Morinomiya University of Medical Sciences,
Vice-principal of
Morinomiya Academy of Medical Sciences

Pediatric acupuncture methods (Shonishin) are unique from filiform acupuncture because they rely primarily on gently stimulating the surface of the skin without inserting needles. This treatment method is appropriate for infants through school age children. Compared to adults, the delicate methods employed are especially effective for these age groups who have extremely sensitive and reactive skin. Very slight stimulation and delicate methods characterize pediatric acupuncture and are safe and highly effective for these young children. Pediatric acupuncture is practiced all over Japan with an especially rich cultural tradition emanating from the Kansai area¹⁻³). Recently, as the number of Japanese births continues to decline, there has been a proportionate decrease in national healthcare revenue covering free or low-cost infant and child treatments, so the number of children receiving pediatric acupuncture has also decreased. Especially for conditions like pediatric neurological conditions, which lack effective low-cost treatments and more general wellness management care, pediatric acupuncture represents a meaningful treatment modality. Below, we provide an overview of pediatric acupuncture.

[A] An Overview of Pediatric Acupuncture

Shonishin (pediatric acupuncture) is acupuncture using particular tools for infants and children and refers to the methods used for these patients. Distinct from acupuncture for adults, it is an acupuncture method that primarily stimulates the skin surface. Pediatric acupuncture developed

during the Edo period and the Kansai Area has remained the central historical hub of these specialties since then. Currently, numerous clinics specialize in “children’s acupuncture” and the expressions describing these traditions are quite varied, however most clinics treat all common childhood conditions. Most notably, the pediatric “Kanmushi” treatment refers to assisting the child develop strong nervous, digestive and immune systems^{4, 5}).

1. The history of Pediatric Acupuncture

There is scarce historical data clarifying the early use of pediatric acupuncture⁶).

Early records pertaining to pediatric acupuncture (Shonishin) go back to Nakano village (Hari Nakano) of the mid-Edo period^{7, 8}). During the late Edo period the technique apparently gained popularity in Osaka and became established there during the Meiji period as a form of childcare culture. The situation became to be assessed even as: "It would not be an exaggeration to say, that there are no indigenous households in Osaka not treating their children with Shonishin⁹." After the Taisho period Shonishin spread throughout the country through the education in vocational schools for acupuncture and moxibustion, books and lectures¹⁰⁻¹²).

A 200 year-old map of Kawachi Hiranogo Township reportedly lists a "Nakano village Pediatric acupuncture clinic". Even today, the station name, “Harinakano” remains in use. Another interesting pediatric acupuncture “heirloom” is reflected in many clinic names inherited from this tradition: Okajima’s rabbit acupuncture, Daruma acupuncture, Turtle acupuncture etc. These names refer to familiar children’s words and playthings, reassuring them and their parents. It is generally accepted that pediatric acupuncture was initially incorporated into Japanese acupuncture during the Taisho period.

2. Appropriate ages for pediatric Acupuncture patients

Infants age 2 weeks up through elementary school aged children receive pediatric acupuncture. There is generally a peak around ages 3-4 with a pattern of children gradually migrating to filiform acupuncture as they get older.

3. Pediatric Acupuncture treatment (appropriate conditions)

Generally speaking, pediatric acupuncture is classified as useful for health management and disease treatment. Health management includes common symptoms associated with “Kanmushi” a Japanese term referring to night terrors, sleep difficulties, moodiness, fussiness, making strange noises, poor appetite, biting etc. that is to say symptoms tend to be associated with childhood neurological conditions. On the other hand, treating common childhood diseases includes sinusitis, tonsillitis, laryngitis, asthma and other respiratory diseases, digestive disorders, such as poor appetite, stomatitis, constipation, diarrhea, eye diseases, such as nearsightedness and eye strain. Additionally, more difficult conditions such as enuresis, epilepsy and cerebral palsy are also treated. It should be noted that while treating children with these conditions the practitioner is primarily treating the child’s QOL by improving sleep, appetite, digestion and elimination. Recently, shoulder stiffness, headaches, nervous ticks, stutters, skin conditions such as dermatitis, developmental challenges, learning disorders have been increasing¹³⁾. Further, health tune-ups before and after sports events, vacations, examinations and recitals assist children adjust physically, mentally and emotionally to the stresses felt during these events.

4. Maladaptation and Contraindications for Pediatric Acupuncture

Maladaptation and contraindications for children are very similar to adults. Requesting the assistance

of a doctor or a specialist of acupuncture is required for fevers over 38°C(104 F), acute abdominal pain, acute spinal injuries, fractures, dehydration, etc.

5. Classification and techniques of Pediatric acupuncture

Pediatric acupuncture involves gently stimulating the skin in very specific locations using various tools, techniques and methods. In general, the most important types of stimulation are contact needling and friction type needling.

a. Types of contact needling: Spring-loaded or seven star plum blossom type tools

[Method] Lightly contacting the skin (commonly used in pediatric acupuncture).

[Adjusting the amount of stimulation] Controlling the length of the needle tip and how it contacts the skin.

b. Types of friction type needling: friction type needle, long sword shape needle (naginata needle), rolling tool (kuruma needle)

[Method] lightly touching the skin with a needle or instrument that is horizontal to the surface and gently stroking using specific techniques.

[Adjusting the amount of stimulation] Appropriately touching the skin (perpendicularly, at an angle, etc.) and adjusting the speed of the horizontal needle.

Figure 8 shows examples of pediatric acupuncture. The needle shown in the upper part of the photo is called Daishi pediatric needle. From the left in the lower part Seirin disposable needles, Yoneyama pediatric needles, scraping needles, shakable needles, and roller needles etc. are presented.

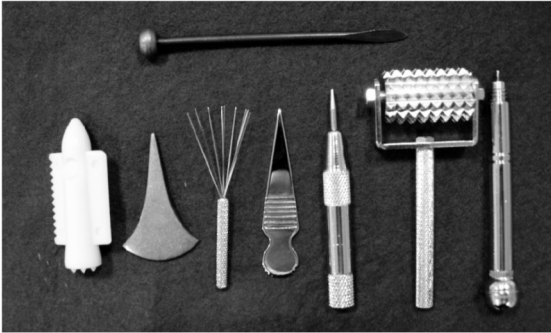


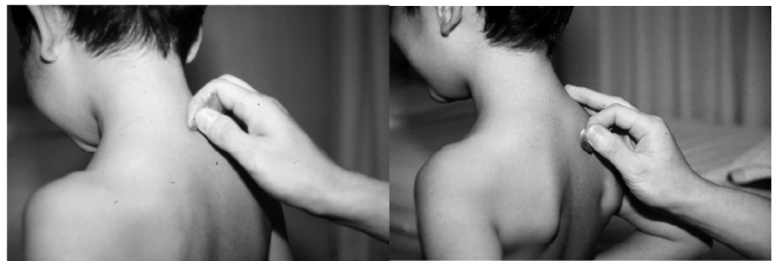
Figure 8 Classification of pediatric acupuncture needles



Figure 9 Fundamental diagnoses of young children

6. Pediatric acupuncture treatment areas and amounts of stimulation for each

Fundamental areas include the head, neck, upper back, chest, abdomen and legs. Specifically, for throat and tonsillitis the anterior neck and jaw will be used. For vision disturbances and near sightedness points on the cheek and temple are used (Tai Yang, GB5). For enuresis, points on the lower abdomen and sacrum are used.



Contact needling on the back Friction type needling on the back

Figure 10 Fundamental treatment methods for pediatric acupuncture

7. Pediatric acupuncture approach and attitude

Figure 9 shows a 5 year old boy receiving a Yoneyama style treatment on his back. The left back depicts contact needling and the right shows friction type needling. This photograph clearly shows the needle tip contacting the skin. However, actually the needle tip only lightly contacts the skin and is then withdrawn in a careful in and out motion that controls the amount of stimulation delivered to the area. Figure 11 on the upper left, shows a 10 month old baby boy receiving treatment. For such young children, it is common for the parent to hold the child during treatment to reassure the child and learn some of the techniques. Additionally, contact needling is performed on the back, left lower leg and right arm (Figure 11)

8. Amount of stimulation and treatment interval

Treatment usually takes under 5 minutes, a positive reaction is indicated by reddening of the skin and slight sweating. Generally, good results are expected in pediatric acupuncture with extremely slight stimulation. Treatment intervals for common complains are usually once a month for a period of 3 consecutive days. More complicated cases may require 4-5 consecutive days before the symptoms abate and the child returns to their naturally calm level of health. Best results are seen if the treatments can be repeated once a month. In the case of acute asthma attacks, while maintaining active communication with the medical doctor, the child may be seen 2-3 times a day. Further, in the case of enuresis, the child may be seen for three consecutive days and then depending on the child's progress, every other day, then twice a week, once a week,

twice a month gradually extending the interval as the child shows consistent signs of improvement.

[B] Routine physical examination for children

The symptoms of the child patients may include serious infectious conditions and diseases. In the case of newborns, because they are unable to communicate using words, open communication with the parent is necessary to help the practitioner grasp the nature of the symptoms and judge whether the child's condition warrants prompt emergency care.

- (1) Visual inspection requires observing the facial appearance. So called Kanmushi presents with particular symptoms including eyelid and lateral nostril redness, engorgement of a subcutaneous vein observable on the forehead and a pale complexion)
- (2) Appearance of the eyes: eyes may be red with inflamed conjunctiva but the overall condition is anemic or pale (Figure 11 upper left)
- (3) Neck and facial appearance: special attention must be given to the lymph nodes in the neck (Figure 11 Upper right)
- (4) Intraoral inspection: redness of tonsils, posterior wall of the pharynx and presence of pustules or Koplik spots (Figure 11 bottom left)
- (5) Listening inspection: the purpose is to confirm presence of wheezing, rattling or other signs of light asthma or bronchitis (Figure 11 Lower right)
- (6) Thermometry (temperature measurement): it is very common for young children and toddlers to develop fevers so temperature must be measured when the child is in a feverish condition.



Figure 11: Pediatric needles for infant

[C] Case Study¹³⁾

1. Case study for a frail body type

Subject: 3 year old boy

[Complaints]The boy's body is delicate and he often catches colds.

[Medical History]Since birth the child's body has been weak, he often gets sick, stays home from day care, is picky about his food and does not eat much. He was hospitalized one month ago for pneumonia and was released just last week. His mother brought him to the clinic hoping to strengthen his body.

[Physical findings]The boy is thin, his conjunctiva are red, lymph glands in the neck area are swollen and painful to light palpation, tonsils are enlarged and the back of his pharynx is red, lung sounds are normal, weak musculature, poor appetite, bowel movement once every 2 days and the amount is small. He squirms and is unsettled at night.

[Treatment]Pediatric acupuncture. The parents and child preferred the treatment be conducted in their home (Du12). Treatments were continued on a weekly basis and gradually the interval was extended. There were some ups and downs but if he caught a cold it resolved quickly and was lighter than before. His appetite increased and his pickiness diminished. His sleep improved. Eventually his mother began to complain that he was so healthy he was hard to manage.

2. Case study for enuresis

Subject: 9 year old boy, 3rd grade in elementary school.

[Complaints] (1) Enuresis, (2) Stuffy nose.

[Medical history] (1) Enuresis started about the time he entered elementary school. The time was variable but he wet his bed every night, and sometimes twice a night. When the boy was examined by his medical doctor, no abnormalities were found. They came to our clinic on the advice of an acquaintance. The boy appeared sheepish and lacked vigor.

[Other medical history] Nothing of note.

[Physical findings] Picky eater, regular bowel movements (once daily), regular sleep cycle.

[General Inspection] Average temperature 36.5°C (97.7°F), swollen lymph glands under the jaw (+), very red nasal mucous membranes (2+), Pharyngeal-laryngeal mucosal redness (+), enlarged tonsils (-), no abdominal tenderness, induration or masses.

[Therapy and treatment] The family had developed a negative cycle of scolding the boy when he wet his bed. The boy felt stress and had lost his confidence. The first priority was to encourage the family to see the problem from the boy perspective, get them to encourage rather than discourage him. Pediatric acupuncture treatments focused on treating the lower abdomen and low back as a means to treating the whole body.

[Progress] treatments were conducted 1 or 2 times a weeks a total of 23 times. Gradually the frequency of bed wetting decreased. Six month following the discontinuation of the treatments, the family reported only occasional wet nights. Updates the following year reported almost no episodes. The boy had become very healthy and happy.

[D] Considerations

1. Pediatric acupuncture treatment

Relevant conditions for pediatric acupuncture include night crying, night terrors, making strange sounds etc. (childhood neurological symptoms,

known as Kanmushi in Japanese). Additionally, respiratory, digestive or ophthalmological conditions are often included. More complicated conditions such as epilepsy are treated not so much for the disease itself, but regular pediatric acupuncture helps to reduce the physical and mental fatigue that naturally drains the child's vitality, keeping him in good condition. Most patients experience lighter seizures and a reduction in frequency. Recently reported treatment effects, include improvements in developmental disabilities, learning disabilities and Asperger's syndrome¹⁴). That is to say, pediatric acupuncture includes safe delicate technique, providing both relief of symptoms and improved overall health so regular administration can maintain health and prevent disease.

2. Positive effects of the spread of pediatric acupuncture

Especially around Osaka and Western regions of the Kansai area, it is said that there are no acupuncturists who do not include pediatric acupuncture in their practice. Over the past several decades, 20-30% out of all visiting patients were the child patients seeking pediatric acupuncture. Recently the birthrate has been decreasing in Japan and there has been a decrease in the overall number of acupuncture child patients. However, the overall number of children receiving pediatric acupuncture has been increasing which bodes well for the long term future of the profession. One point about this type of treatment is the short treatment time. Gentle stimulation to the skin takes about 5 minutes and rarely more than 10, so the number of children coming and going from the clinic will increase giving the appearance of a booming practice. As the children grow and develop they become accustomed to this type of treatment and usually lose any resistance to acupuncture and moxibustion. Of course, there are the members of the child's family, parents, grandparents, siblings who accompany the child to their treatment—they begin to understand

the treatment style and often become patients themselves. In this way, as pediatric acupuncture patients increase, regular acupuncture and moxibustion patients increase as well.

3. Challenges of pediatric acupuncture

We are often asked why pediatric acupuncture is effective, currently there are 4 published theories: (1) Control of the autonomic nervous system in childhood development, (2) Immune system enhancement, (3) Regulation of growth hormone and adrenal cortical hormone, (4) Improved blood circulation.

Harlow HF reported, in an experiment using monkeys, that skin stimulation is important for normal development¹⁵⁾. The normal healthy emotion cannot be developed without the skin stimulation received while being held by the mother or similar stimulation. Further, Schanberg and Field¹⁶⁾ reported that skin stimulation is critical for normal physical and emotional development and went further to state that beyond the early years of life, tactile stimuli and physical contact plays an essential role in emotional and physiological health and development. Unfortunately, little research on pediatric acupuncture has been performed. In 1929, Fujii et al. investigated changes in blood pressure, respiration, body temperature and peristalsis among young children and rabbits. They reported that pediatric acupuncture provided one type of skin stimulation capable of modulating sympathetic nervous system tension. Further, Katai et al. investigated the effects of pediatric acupuncture on healthy adult males and found reduction in heart rate and reported that this stimulation had a definitive effect on the autonomic nervous system. In the future, they are hoping that additional research on the effects of pediatric acupuncture will be conducted.

References

- 1) Hirohisa Yoneyama, Hidetaro Mori: Pediatric acupuncture methodologies, Ido no Nippon, Inc.1980
- 2) Masanori Tanioka: User friendly pediatric acupuncture, Genso-sha, 1998
- 3) Mitsuko Nagasawa, Shin Suzuki, Naomichi Shimizu et al.: Clinical pediatric acupuncture. Shinkyu Osaka 14-1: 12-26, 1998
- 4) Isao Okuda: Pediatric acupuncture: methods and general information. Shinkyu Osaka 14-1: 34-38,1998
- 5) Shin Suzuki: Pediatric acupuncture methodology, Pediatric acupuncture- practice, effects and clinical management, pp2-20, Ido no Nippon, Inc, 2006
- 6) Hitoshi Nagano: The origin of the Pediatric acupuncture – birth of a pediatric acupuncturist and its historical background—. Journal of the Japanese Society for the History of Medicine 56-3 : 387-414, 2010
- 7) Sesshu Hirano Map, Horeki year 13 (1763)
- 8) Shinkyu Soku (Acupuncture and Moxibustion Rules*), published Meiwa year 4 (1767)
- 9) Shoni Yoiku no Kokoroe (Guidelines for Bringing up Children*), Enlarged 2nd Edition, by Sokitsu Nagahama, Meiji year 39 (1906, August)
- 10) On the Origins of Shonishin The emergence of pediatric acupuncturists and its historical background, Hitoshi Nagano, Yutaka Takaoka, Journal of the Japanese Society for the History of Medicine, 56 (3), 2010
- 11) Catalog of Reference Materials on the History of Japanese Shonishin, Authorship, Modern Edition (Vol. 1 / Vol. 2), Hitoshi Nagano, 2011. 1-2
- 12) Outline of the History of Japanese Shonishin, (Vol. 1, 2, 3), Hitoshi Nagano, Ido no Nippon, Inc. 2011.12, 1012. 1-2
- 13) Tomofumi Ozaki: Examples of successful treatment for nocturnal enuresis treatment using Pediatric acupuncture. Shinkyu Osaka 14-1, 1998

- 14) Shigeyuki Hirose, Yasuji Nonoi, Mitsuko Nagasawa et al.: Pediatric acupuncture and moxibustion treatment. *Shinkyu Osaka* 94: 10–32, 2009
- 15) Tadashi Yano: Fundamentals of clinical Acupuncture and Moxibustion medicine. *The human science of Oriental medicine IV*, Waseda University, Department of Human Sciences, 96: 116–119, 1995
- 16) Yuko Sato: Neurophysiology of acupuncture —a study on the mechanism of acupuncture in recent years—. *The Japan Conference of Clinical Acupuncture and Moxibustion* 11–1: 1–15, 1966