

Acupuncture and Tuina for Hyperactive Children

Abstract

This article discusses the Chinese medical treatment of 'hyperactive', 'hyperkinetic' or 'inattentive' children, who may have been diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD). The pathogenesis, main patterns and treatment of the condition are explained, and illustrated with case studies taken from an ongoing pilot study at the Xiaoxiao children's centre in Milan, Italy.

Children and qi

From the perspective of Chinese medicine, human beings are qi: our emotions and intelligence, blood and body fluids, muscles and bones, shen and jing are all seen to be manifestations of qi occurring at different densities. The primary characteristic of qi is that it is always moving: it circulates without stopping and changes through time. As human beings we are therefore in constant movement and transformation, and the quality of our qi changes throughout our life.

When we come into the world, we are extremely fragile: the qi that constitutes our individuality has just begun its existence, but has not yet been consolidated. Children are therefore delicate, and because of this paediatric medicine exists as a speciality in Chinese medicine, with its own specific diagnostic criteria and therapeutic interventions. Classical texts clearly describe the relative immaturity of children's qi. It is said that the zangfu of children are 'soft and tender' (zang fu jiao ruo 脏腑娇弱), which means that the functions of the various internal organs have yet to fully develop and consolidate. The network of the jingluo is also in the process of building up, and the flow of qi has yet to stabilise - it is therefore said that in children 'qi easily loses its way' (qi yi chu dao 气易出道). During the first phases of life growth is rapid, and a large amount of qi is needed for the digestive processes of transformation and transportation; a child's digestive system is often not adequate for such a task, and it is therefore said that 'the Spleen of children is insufficient' (xiao er pi bu zu 小儿脾不足). Children's zheng qi (upright qi) is also fragile and vulnerable to attack by xie qi (pathogenic qi); thus it is said that in children 'illness develops easily and enters and changes rapidly' (fa bing rong yi, chuan bian xun su 发病容易, 传变迅速). Childhood corresponds to spring, dawn, the wood phase, and yang that grows within yin; it is the phase at which yang is at its highest potential. This yang quality can

easily become excessive in relation to yin, and thus it is said that 'the yin of children is insufficient' (xiao er yin bu zu 小儿阴不足). The qi that corresponds to the wood phase is powerful and can easily become excessive, causing disorders involving excess Liver qi, and it is therefore said that in children 'the Liver often has excess' (gan chang you yu 肝常有余). On the other hand, it is also said that children's qi and zangfu are still 'clean', because illness has not yet had time to affect them; thus it is said that in children 'the zangfu spirit is pure, health is easily and rapidly recovered' (zang fu qing ling, yi qu kang fu 脏腑清灵, 易趋康复).

Hyperactivity and attention problems

Children naturally have a yang and lively nature. They are exuberant and easily become impulsive and hot-headed. They move by running, speak by shouting, rarely sit quietly and often wish to force their will upon others, exploding in furious rages if anyone objects to their demands. Such eagerness becomes a problem when it begins to interfere with their growth, internal integration and development. That is, if hyperactivity and its correlates begin to disturb the child's ability to relate to others and obstructs their learning, planning and cognitive, linguistic and motor functions, then an intervention needs to be made.

Children that are said to be 'difficult' or 'hyperactive' not only find it difficult to keep still, but also tend to be reckless, impulsive and prone to accidents. Their poorly-regulated and excessive activity involves a tendency to move from one activity to another without completing the initial task, and a lack of persistence in activities that require cognitive involvement or sustained mental effort. Furthermore, they are often insensitive to others: they butt into conversations or games, do not wait their turn and do not respect basic social rules. They often find themselves in trouble due to unthinking breaches of rules rather than deliberate defiance. They are frequently unpopular with other

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children, and because of this may become isolated. Their problems manifest on a behavioural level, but involve cognitive functions (strategic planning, mental flexibility, maintenance of mental effort, avoiding inappropriate answers). Because of this a vicious cycle of low self-esteem, frustration, isolation and difficulties at school can originate, which is associated with anxiety, depression, language and learning disorders, nervous tics and probable future antisocial behaviour during adolescence.

The main diagnostic criteria for this pathology are defined by the DSM-IV¹ as 'Attention-Deficit/Hyperactivity Disorder' (ADHD), and by the ICD-10² as 'Disturbance of Activity and Attention' (DAA) (a subtype of 'Hyperkinetic Disorders'). Both manuals specify that the condition should involve significant impairment in social and academic functioning in at least two settings (e.g. at home and at school), should be present for at least six months, and should start before the age of six (ICD-10) or seven years old (DSM-IV). The prevalence in school-age children is estimated at three to five per cent (DSM-IV - used in U.S. and Australia) or at one to two per cent (ICD-10 - generally used in Europe). Male-to-female ratios range between four to one (DSM-IV) and nine to one (ICD-10).

The cause of this disorder is unknown and there are no confirmatory laboratory tests. One hypothesis concerns central nervous system (CNS) malfunction, mainly in the pre-frontal cortex and involving the dopaminergic and noradrenergic circuits that link the prefrontal regions to limbic system. Low dopamine and noradrenalin levels are the basis for pharmacological therapy with stimulants (such as methylphenidate – branded Ritalin, or lisdexamfetamine dimesylate-LDX). There is also evidence of a genetic role in the onset of ADHD, but morbidity, evolution and prognosis depend mainly on the child's school and family environment. Beside pharmacological treatment, cognitive behavioural therapeutic strategies have been developed for at home and school. It should also be pointed out that the biomedical diagnosis of this condition has its limitations, and that many children present with attention problems and behaviour or learning disorders that do not correspond to the criteria set out in the diagnostic manuals.

Pathogenesis according to Chinese medicine

From the perspective of traditional Chinese medicine, the symptoms involved in this condition (night crying, poor sleep, hyperactivity, attention deficit etc.) are manifestations of an energetic imbalance that can only be understood in the context of the pathogenic process from which it originated. Making a diagnosis necessitates understanding the illness, which means being able to perceive the ways in which a child's system has altered. This is the starting point from which therapeutic principles and treatment are devised. In TCM paediatrics diagnosis

is usually easier than in adults; time has not yet produced too much pathological confusion, which means that pattern differentiation is simpler.

Children that have difficulty sleeping or in being calm are said to have an imbalance between their yin and yang qi. The yin qualities of quietness, concentration, inwards movement, receptivity and softness are disturbed by an excess of yang - expressed as movement, expansion and heat. Excessive yang qi entails excessive movement: emotions (which are movements of qi) become messy and chaotic. If the qualities of heat and fire prevail they can disturb the Heart, agitating and confusing the shen (the most subtle manifestation of qi). Yin deficiency corresponds to a weakness of the root (deficiency of qi or jing [essence]), which causes instability of the shen, since shen is nourished by qi and rooted in jing. Furthermore, both heat and deficiency facilitate clotting of phlegm, which can obstruct the portals of the Heart (xinqiao) and mist the mind and emotions.

Manifestations and patterns

Instability, agitation and misting of the shen manifests in various ways. Children, according to their age may be:

- Agitated, restless, always moving their hands and feet.
 - Impulsive, intractable, tense, angry and stubborn.
 - Easily distracted and vague, with difficulties in maintaining attention, listening and following instructions.
 - Anxious, afraid, in need of reassurance and emotionally fragile.
 - Prone to night crying, waking frequently and sleeping late.
- These main presentations derive from various underlying patterns, such as excess heat, phlegm, food accumulation and qi or jing deficiency. The somatic problems involved (e.g. stool disorders, eczema or tics) are strongly influenced by the internal dynamics caused by movement of the emotions.

Heat agitating the shen

Children are yang by nature and so easily generate excess heat. Heat may already be present at birth due to foetal toxins (taidu), or it may derive from external pathogenic factors that penetrate inside and persist at a deep level (e.g. lingering pathogenic factors, hidden heat). In Western society, however, the most common factor that generates heat is food accumulation (ji).

Heat disturbs the quietness of yin and does not allow the child to rest, causing poor sleep. It agitates qi and causes physical and mental restlessness, hyperactivity and impulsive behaviour. It disturbs the shen and agitates the emotions, causing disorders of attention and concentration. Heat may also transform into internal wind, manifesting as tics. Further somatic manifestations are: throwing off the bedcovers, hard stools, red spots, rashes, dark yellow urine, thirst, red tongue or a red tongue tip, and a rapid

pulse. If heat and fire persist for a long time they will consume qi, and subsequently all functions of the body and mind will be adversely affected.

Phlegm misting the shen

Phlegm is turbid, sticky, heavy and difficult to move. It 'localises at the hundred places and causes the hundred illnesses'. It may have substance/form (you xing) - causing catarrh and masses - or be without substance/form (wu xing) - causing obstruction of the Heart portals and misting of the shen.

In children phlegm is easily generated due to the immaturity of the Spleen and Lung functions of transformation and diffusion, and to the tendency of food accumulation to obstruct the circulation of qi. If phlegm mists the Heart portals the clinical manifestations include extreme emotional swings, violent behaviour, sudden energy loss, language disorders, confusion, opaque and 'disconnected' eyes, poor coordination, poor sense of direction and sluggish or impulsive reactions. Further manifestations at the somatic level are: catarrh, swollen lymph nodes, rough skin and a thick tongue coating (yellow in case of heat, white in case of cold).

Food accumulation transforming into heat and phlegm

Food accumulation (ji) does not mean acute indigestion, but rather an excess that comes from eating the wrong quality, quantity and frequency of food. Such dietary excess overcomes the ability of the middle jiao to transform and transport. Food accumulation is a common condition in 'full' (shi) children. Such children are as enthusiastic about food as they are about life. Sometimes excessive food intake may no longer be obvious, but may be traced back to the first months of life (usually due to overly-frequent breast-feeding).

Food accumulation obstructs qi circulation and because of this the child does not sleep well and is not at peace during the day. It particularly interferes with the Liver function of spreading-discharging, and manifests as a foul temper, fits of rage, resentment, stubbornness and extreme antagonism. Further manifestations at the somatic level are: a large appetite, a swollen and hard abdomen, abdominal pain, red spots on the cheeks, a greenish shade around the mouth, thick yellow nasal discharge, greenish stools, restlessness (day or night), foul smelling stools/skin/breath/vomit/urine, eczema and a yellow tongue coating. Although food accumulation is not particularly serious in itself, it causes many problems because of its tendency to easily transform into heat and phlegm.

Qi, blood and jing deficiency not nourishing the shen

If qi and blood are deficient, the shen will lack an abode. If jing is weak, the shen will not have a root. Children with frail qi also tend to be emotionally fragile, overly dependent, fearful, anxious, need lots of attention and

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tend to wake up at night in fear and terror. Further manifestations at the somatic level are: poor appetite, pale face, tiredness, frequent illness, soft stools and a pale tongue. If the Kidney and jing are involved, these symptoms will be more serious, and there may also be a dark shade under the eyes, nocturnal enuresis, retarded development, congenital or genetic pathologies and a pale tongue (red if there is yin deficiency).

If the middle jiao qi is weak, all transformations will be weak: the general energy will be low, growth will be slow, the digestion poor and the resulting dampness will easily transform into phlegm. Because children grow so rapidly and the Spleen and Stomach are often working close to their limit, it is particularly important to support the qi of the earth through treatment (but also through mother's milk, sleep, and plenty of cuddling).

Therapeutic principles and treatment

There are no data evaluating the treatment of ADHD with Chinese medicine; evaluation is difficult due to the complexity of the condition, the subjectivity of its diagnosis and the variety of therapeutic methods involved in its treatment. However, consensus is growing regarding the efficacy of the Chinese medical treatment of other less serious childhood conditions, such as agitation, impulsivity, poor concentration, emotional fragility and sleep disturbance (as it is in the area of adult psycho-emotional problems).

The therapeutic principles here are informed by the knowledge that the child's qi is fragile and its shen is vulnerable. Therefore just as we would tonify qi to protect the body from external pathogenic movements of qi (e.g. cold, dampness and heat), we do the same to protect against damaging internal movements of the emotions (e.g. anger, fear and sadness). The overall therapeutic principle here is expressed as 'calm shen, stabilise zhi' (an shen ding zhi). To achieve this, and to select the appropriate principles of treatment, it is necessary to understand why the shen has become agitated, unstable or misted. It is also essential to eliminate lingering pathogenic factors, since their persistence at the deep levels of the child easily causes heat and phlegm.

Treatment may involve a combination of tuina, acupuncture and moxibustion. It is critical that the parents/carers support this treatment by modifying daily habits (usually diet, rest and activity). They can also

actively cooperate with treatment by applying simple tuina sequences at home.

Main acupuncture points

The following main acupuncture points are provided as recommendations. Practitioners should choose which specific combination of points to use in each case based on diagnosis and preference.

- To regulate Heart qi: Shenmen HE-7, Tongli HE-5, Xinshu BL-15, Shentang BL-44 and Shendao DU-11.
- To descend excess yang from above and resolve phlegm obstructing the Heart portals: Yintang (M-HN-3), Shenting DU-24, Houding DU-19, Qianding DU-21 and Sishencong (M-HN-1).

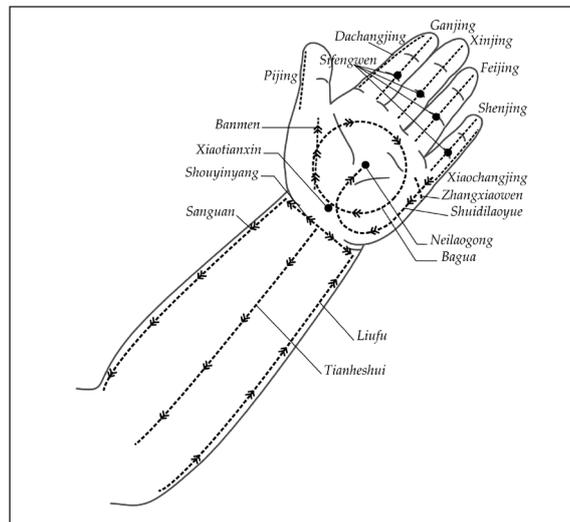


Fig 1: Tuina techniques on the arm and hand [Image from *Pediatrics in Medicina Cinese* (2009)]

- To reinforce the marrow and brain and raise the clear qi: Baihui DU-20.
- To regulate qi movement through the small circulation (Conception-Ren and Governing-Du vessels): Shanzhong REN-17 (or Jiuwei REN-15, Jueque REN-14, Zhongwan REN-12) and Qihai REN-6 (or Guanyuan REN-4).

Care-givers may also apply a vaccaria seed to Yintang (M-HN-3) during the night or daily after school.

Main tuina techniques

- Tianmen (Heaven Gate): Tui from Yintang (M-HN-3) upwards towards hairline.
- Xinmen (Gate of Heart): Tui from the anterior hairline towards the fontanelle.
- Kangong (Water Palace): Fentui from the medial extremity of the eyebrows towards their lateral edges.
- Xiaotianxin (Small Heaven Heart): Kou at the base of the palm between the thenar and hypothenar eminences.

- Shou yinyang (Hand Yinyang): Fentui from the centre of the medial wrist crease towards the lateral edges.

Secondary acupuncture points and tuina techniques according to pattern

Heat

If heat is agitating the shen, the following acupuncture points can be added:

- To eliminate heat in Yangming: Quchi L.I.-11, Hegu L.I.-4 and Zusanli ST-36.
- To eliminate heat in the Stomach and Liver: Neiting ST-44, Weishu BL-21, Taichong LIV-3, Xingjian LIV-2, Ganshu BL-18 and Danshu BL-19.
- To eliminate exterior and interior heat: Dazhui DU-14
- To extinguish internal wind: Fengfu DU-16, Baihui DU-20, Fengchi GB-20, Taichong LIV-3 and Ganshu BL-18.

Tuina:

- Tianheshui (Heaven Peaceful Water): Tui along the midline of the medial aspect of forearm from wrist to elbow.
- Xinjing, ganjing, feijing (Heart, Liver and Lung): Tui the tips of middle, index and ring fingers (holding the 3 together, as if ‘slapping’ them).
- Neilaogong (Palace of Toil): Rou at the centre of the palm.
- Shuidi laoyue (Fishing the Moon in the Water): Tui in a curved line from the base of the little finger along the hypothenar eminence to the centre of the palm.

If heat injures the Intestines, it can be eliminated as follows:

- Dachangjing, xiaochangjing (Large and Small Intestine): Tui from the base to the tip of the radial aspect of the ring finger and ulnar side of the little.
- Qijiegu (Clear Seven Bones): Tui down the midline of the lumbosacral region from the fourth lumbar vertebrae to the coccyx.
- Guiwei (Tortoise Tail): Rou at the tip of the coccyx (at an angle of 45 degrees, towards the umbilicus).

The cause of heat must, of course, also be treated, i.e. eliminating food accumulation, expelling lingering pathogenic factors, nourishing yin or stabilising jing.

Phlegm

- If phlegm obstructs the Heart portals and mists the shen, the following points can be used:
- To resolve phlegm: Jianshi P-5, Fenglong ST-40 and Bailao (M-HN-30).
- To move qi: Lieque LU-7 and Taichong LIV-3.
- To descend excess yang from above and resolve phlegm obstructing the Heart portals: Yintang (M-HN-3), Shenting DU-24, Houding DU-19,

Qianding DU-21 and Sishencong (M-HN-1).

- To raise clear qi: Baihui DU-20.

Tuina:

- Bagua (Eight Trigrams): Tui in a circular fashion on the palm around Laogong P-8.
- Zhang xiaowen: Tui horizontally along the crease on the palm under the little finger.
- Xielei (Clear Costal Region): Tui along the flanks from the armpit to the level of the umbilicus.
- Pishu BL-20, Weishu BL-21 and Feishu BL-13: Rou to stimulate these points.

In order to resolve phlegm it may also be necessary to tonify the middle jiao and the Lung to strengthen transformation and transportation, eliminate heat/cold and eliminate food accumulation.

Food accumulation

If heat and phlegm are being caused by food accumulation, the following points can be used:

- To regulate Stomach qi: Zhongwan REN-12.
- To eliminate/free food accumulation and tonify the Spleen: Sifeng (M-UE-9). These points usually give good results after one or two treatments. They are actually less painful than generally thought. They are punctured superficially in a rapid sequence, and then squeezed to produce a drop of blood or serum. Traditionally the triangular needle was used (on the right hand for girls and the left for boys), although now blood-lancets are usually used.

Tuina:

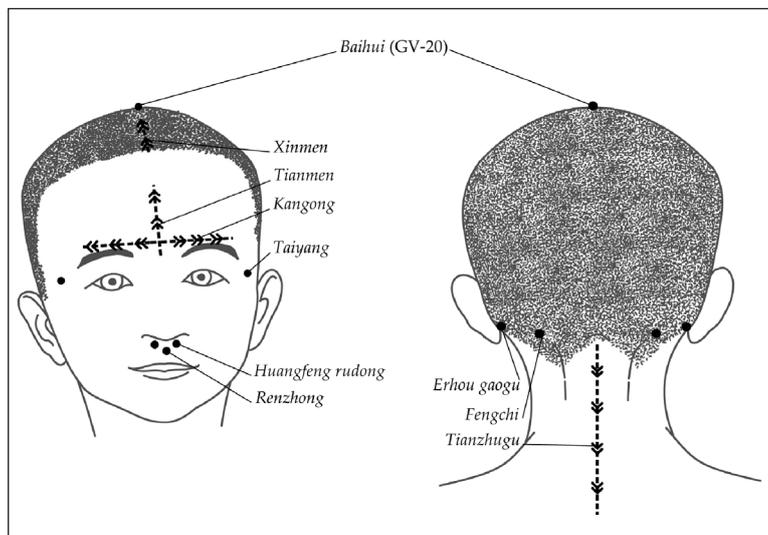
- Banmen (Thick Gate): Tui along the thenar eminence from the wrist crease to the base of the thumb.
- Shou yinyang (Hand Yinyang): Fentui from the centre of the medial wrist crease towards the lateral edges.
- Sifengwen (Four Wind Creases): First tui and then qia (press with the nail) the four Sifeng (M-UE-9) points.
- Fu yinyang (Abdomen Yinyang): Fentui under the ribs, from the centre out to the sides.

To treat food accumulation it will also be necessary to correct basic mistakes in the quantity, quality and frequency of food intake, which usually means reducing the frequency of breast-feeding, and for older children avoiding foods that are excessive/extreme in nature and taste/flavour (i.e. 'junk' food).

Tonifying qi and stabilising jing

If the shen is disturbed due to qi or jing deficiency, the following points can be used:

- To tonify and regulate the middle jiao: Zhongwan REN-12, Zusanli ST-36, Taibai SP-3, Pishu BL-20 and Weishu BL-21.



- To nourish yin: Sanyinjiao SP-6, Taixi KID-3, Yongquan KID-1 and Ququan LIV-8.
- To tonify the Kidney and nourish jing: Shenshu BL-23, Mingmen DU-4, Taixi KID-3 and Qihai REN-6.

Tuina:

- Pijing (Spleen): Tui from the tip to the base of the radial aspect of the thumb.
- Roufu (Knead the Abdomen): Rou at depth with the palm, or fingers and thumb, around the umbilicus
- Zusanli ST-36: Rou to stimulate this point.
- Jizhu: Tui downwards along the spine and then nie upwards along the sides of the spine (nie-pinch is done as a continuous roll).

To tonify the Kidney and nourish jing, add:

- Shenjing (Kidney): Tui from the tip to the base of the palmar aspect of the little finger.
- Erma (Two Men on Horses): Rou on the dorsal aspect of the hand, between the fourth and fifth metacarpal bones.
- Yongquan KID-1: Rou or tui (towards the toes).

Moxibustion:

- To tonify and regulate the middle jiao: Zhongwan REN-12, Zusanli ST-36, Taibai SP-3, Pishu BL-20 and Weishu BL-21.
- To tonify the Kidney and nourish jing: Shenshu BL-23, Mingmen DU-4 and Qihai REN-6.
- Shenque REN-8 can be added in case of serious deficiency.

It may also be necessary to eliminate heat or phlegm if they are present.

The Xiaoxiao Children's Centre and the hyperactivity pilot study

The Xiaoxiao Children's Centre³ was started in 2005 in

Fig 2: Tuina techniques on the head and neck [Image from *Pediatrics in Medicina Cinese* (2009)]

Milan, Italy, to treat children using tuina and acupuncture. In its first three years the Xiaoxiao Centre carried out a pilot study on the treatment and prevention of child respiratory diseases. In October 2008 a new pilot study was initiated to investigate the treatment of hyperactive children. In this 'quiet-project' the children are given a course of six free sessions, the final session of which is one or two months later than the others to serve as consolidation and follow-up. Treatments are based on a Chinese medical diagnosis (without following rigid protocols) and use mainly paediatric tuina and acupuncture, supported where appropriate with moxibustion, cupping, ear-seeds, guasha and plum-blossom needle. In addition, a tuina sequence is taught to the child's parent or carer, to apply daily at home. Although we are careful to avoid making the child's carer feel guilty if they do not do their 'homework', we emphasise that such home treatment is of great importance, since in Europe we are generally not able to treat three times a week as they do in China. We have also noticed that if parents are able to administer home treatment they feel much more empowered (and we also teach them 'emergency' sequences to use in case of acute colds, fever or constipation).

Data were recorded using a specifically designed clinical chart, which is available to other clinics that treat children with Chinese medicine, with the aim of building a network for gathering and exchanging information. A semi-structured follow-up interview was also given to all the parents to find out their opinion of the centre, the results of the treatment, and whether they continued to use tuina at home.

Case studies

In this section I present the cases of children who were referred to the Xiaoxiao Centre for poor attention, difficulty playing quietly, hyperactivity, stubborn attitude and frequent furious fits of anger.⁴ Whilst these cases have much in common, they also illustrate that cases may differ significantly in terms of pathogenesis, diagnosis and treatment.

The dragon of jealousy

Ivan was a seven-year-old child who was unable to keep quiet, had poor attention, experienced frequent and violent fits of rage and had difficulty going to sleep (which was then disturbed). His mother reported that he seemed constantly slightly angry, mainly with his younger brother. Sometimes when Ivan was tired or angry he would get a frontal headache. His tongue was slightly elongated, with red sides and some red spots, and his pulse was slightly wiry (xian).

In Ivan's case a Liver excess (you) was transforming into fire and agitating the Heart and shen. The fits of anger towards his brother (whom he felt was restricting his space) might be seen as the manifestation of Liver qi

without the soft and flexible qualities of the wood phase; when faced with an obstacle the Liver qi clashes against it, rising up with the power of the dragon, swift and violent as a great wind. Liver yang and fire were causing agitation during the yin-night time, disturbing Ivan's attention and peace, ascending to cause headaches, 'pushing' out the tongue body and making it red, and giving the pulse the characteristic 'violin-string' tension.

We chose to clear the heat that was agitating the shen and soften the Liver yang.

- Tuina: shou yinyang, roufu, zusanli, nieji, ganjing, xiaotianxin, tianheshui and xinmen (also at home daily).
- Acupuncture: Taichong LIV-3 (also with plum-blossom needle at home) and Yintang (M-HN-3).
- Ear-seeds: Shenmen bilaterally, which Ivan was asked to press 15 times before sleep and 15 times after waking up.

In this case the ear-seeds, acupuncture and plum-blossom needle were included in order to differentiate Ivan's treatment from that of his younger brother (who had been treated for respiratory problems); the acupuncture needles called for courage and the ear-seed pressing required engagement and responsibility.

After 20 days, during Ivan's third treatment, we heard that he no longer had headaches and his sleep was better, although at school he was still restless and inattentive, and he would still snap at his mother. At his fifth treatment the situation had changed significantly: Ivan was more peaceful at home, more considerate at school, and was smiling and cooperative whilst at the clinic. At his sixth treatment - just before the summer holidays when most children are tired - Ivan's attention and response were fine. At home the family were more relaxed, and in clinic his tongue now showed just a little redness at the tip.

An engine always running

Franco, a five-year-old boy, had difficulty keeping quiet. He was never still, 'as if his engine is always running', and tended to react impulsively. He had always been a lively child, but after his younger brother was born he became impetuous and prone to fits of rage whenever his parents refused him anything. Although Franco slept through the night, he would move a lot, throw off the covers, wake early and would immediately be very active. He had hard stools, difficult evacuation, dry lips, a very red tongue tip, a large thirst and was always hot. In addition, he had started teething late for his age, needed nappies until the age of four and his language was poor for his age (he was in speech therapy).

In this case the heat was being caused by Kidney weakness, mainly in its deepest yin aspect. This weakness of pre-heaven qi had drained post-heaven qi, so that the Spleen and Stomach qi became too weak to transform dampness (his tongue was swollen and teeth-marked). Dampness easily clots into phlegm - indeed, Franco had

experienced atopic dermatitis until the age of three and had been prone to respiratory tract infections for which he was given antibiotics six times.

We chose to clear the heat that was agitating the shen, and at the same time tonify Kidney and Spleen qi.

- Tuina: pijing, roufu, zusanli, nieji, shenjing, yongquan, erma, tianheshui, tianmen, kangong, xiaotianxin, xinshu, ganshu, shenshu, mingmen (also at home daily).
- Acupuncture: Baihui DU-20, Taichong LIV-3 plus a vaccaria seed was applied to Yintang (M-HN-3) (also at home during the afternoon).

The results of treatment were good, at least in terms of the strongest manifestations of heat. Franco appreciated the massage, 'so I don't have bad dreams', and his stools became normal in the first week. After two weeks his mother reported that he was less agitated during the day and while asleep, and he only rarely experienced fits of anger. At the follow-up treatment, although Franco was still very active - waking early in the morning and having difficulties with rules and limitations - he was now able to play peacefully, was less belligerent and did not become furious every time he encountered a problem.

Fear and rage

Giacomo was eight-years-old, an impetuous child who easily exploded into fits of rage. He was often upset and aggressive - usually with his mother, but also at school where he could not cope with rules and discipline. At the Xiaoxiao Centre he was never still; he touched everything and kept interrupting his mother while she spoke with us. These difficulties seemed to have started three years ago when his mother had been treated for breast cancer. She reported that until the age of two and a half there had been nights during which Giacomo squirmed and wriggled - as if with terror - for up to 40 minutes, and there would be no way to calm him down. Although he no longer woke up, he would sometimes move around a lot and throw off the covers, and at other times 'cover himself with blankets, cushions and teddy bears as if barricading himself in fear of who-knows-what!'

In Giacomo's case there was an imbalance of fire and water, with excess heat (he was hot, thirsty, had dry skin, red spots on his belly, a red tongue tip and his pulse was slightly rapid). This had been caused by the movement of fear internally that consumed qi and yin and consequently injured the shen. Whilst it seemed that the core of the current condition was already present as a baby (night terrors), his mother's serious illness seemed to have reactivated this emotional pattern.

We chose to clear the heat that was agitating the shen, nourish yin and tonify the Kidney.

- Tuina: pijing, zusanli, nieji, ganjing, xinjing, feijing, xiaotianxin, tianheshui, tianmen, xinmen and yongquan (also at home, daily).
- Acupuncture: Baihui DU-20, Yintang (M-HN-3), Taixi

KID-3 plus a vaccaria seed applied to Yintang (M-HN-3) (also at home in the afternoon).

During his treatment Giacomo gradually became more reasonable, with less furious reactions. He still experienced some headaches and nights during which he moaned and clenched his teeth, and at school he was still very reactive, but he became able to maintain attention for longer periods, and at home became more peaceful, less aggressive and upset with his mother, and no longer resisted everything he was asked to do. A year and a half later his mother wrote to us that he was still very active, but not excessively so, and that he would of course sometimes get upset when reminded to do his homework - just like the other kids at school.

'What a bang!'

Guido was seven-years-old, and was referred to the Xiaoxiao Centre in an attempt to avoid surgery for enlarged adenoids. He had to breathe through the mouth and had dense green nasal discharge and enlarged neck lymph nodes, but did not experience apnoea or bronchial catarrh. He would speak and move incessantly, dominating people's attention. At school his attention and performance were good. Three weeks previously he had begun to have frequent head tics, during which his head would twitch forward.

In this case heat had dried fluids (thirst, tongue cracks) and was agitating qi (disturbed sleep, motor and verbal hyperactivity, rapid pulse), clotting phlegm (thick mucus, lymph nodes, eczema until two years old, adenoids) and transforming into internal wind (febrile convulsions in his first months, head tic). Therefore besides clearing the heat that was agitating the shen, our treatment principles involved tonifying Lung qi, resolving phlegm and pacifying internal wind.

- Tuina: pijing, roufu, zusanli, nieji, fu yinyang, bagua, tanzhong, xielei, ganjing, xinjing, feijing, xiaotianxin, tianheshui, shou yinyang, tianmen and kangong (also at home, daily; the extra tuina sequences and guasha to apply for acute illnesses were essential in this case).
- Acupuncture: Hegu LI-4, Yintang (M-HN-3), Tiantu REN-22, Qihai REN-6 (plus a vaccaria seed applied to Yintang [M-HN-3] at home during the afternoon).

'What a bang! What a bang!' was Guido's initial reaction to needling Tiantu REN-22 - not so much due to pain, but rather due to the strange sensation of deqi. After one treatment the nasal obstruction became less severe and the discharge was lighter in colour and thinner. After three further treatments Guido was able to breathe freely, was sleeping more peacefully and his head had stopped twitching. By the seventh treatment his nasal congestion was very light, his sleep was tranquil and his mood during the day more relaxed. After five months at the follow-up session, his health was still good: his lymph nodes were not palpable (there was no need for the

...by the eighth treatment we witnessed a child who had grown taller and stronger, was sleeping well, did not need a nappy, and had a hearty appetite....

adenoidectomy) and his behaviour, whilst still energetic, was not alarmingly so.

Bad dreams

Roberto was a four-year-old child who would often wake up at night, frightened by bad dreams. He was also very fearful during the day, and the subject of death often appeared in his conversation. At night he still needed nappies. Breast-feeding Roberto had been difficult – as a baby he did not want to eat. Because of this he grew very slowly. His appetite was still poor when he was brought to the clinic. He was rarely ill, although he already had six filled teeth.

In this case the shen was agitated (poor sleep, nightmares) due to a fragility of the root - a weakness of Kidney qi (nocturnal enuresis, fear, teeth problems). This weakness came from an original deficiency of Spleen qi (troubles in feeding, growing and appetite). If the middle jiao does not produce enough qi, it has to be drawn from the deeper source of Kidney qi. We therefore chose to calm the shen, tonify the Spleen and consolidate the Kidney.

- Tuina: pijing, nieji, zusanli, roufu, shenjing, erma, yongquan, xinmen, tianmen and kangong (also at home, daily).
- Moxa: Mingmen DU-4, Pishu BL-20, Shenshu BL-23, Qihai REN-6 and Zusanli ST-36 (also at home, twice a week).

At the second treatment two weeks later (the family lived some distance from Milan, but they did their 'homework' diligently) Roberto's parents reported that his appetite had improved, he was having less nightmares and had even twice slept the whole night through. By the fourth treatment he was eating almost normally, was waking up just once in the night, seemed less scared and his enuresis was much less frequent. Although the situation deteriorated slightly over the next two weeks, with some tiredness, crying and clinginess, his appetite remained good and the enuresis rare. The situation then continued to improve over the next month, and by the eighth treatment we witnessed a child who had grown taller and stronger, was sleeping well, did not need a nappy, and had a hearty appetite. He was still very close to his mother, but was definitely more autonomous and 'solid' in the world.

Too much heat to find any rest

Tania, a girl of nearly two-years-old, had difficulty getting off to sleep and tended to wake early in the morning. During the night she would move a lot, waking four to

five times crying desperately and wanting to be held by her mother. Her parents said she was active, rather than agitated, 'but with a bad temper'. At the clinic she was restless, tense and refused to be touched.

Breast-feeding Tania had been difficult - she had been given artificial milk from her third month, after which time she began to eat a lot. As a baby her sleep had been good, although it deteriorated at around six to seven months after the switch from milk to solid food. Her stools were often hard, infrequent, difficult and sometimes had traces of blood. She was thirsty and warm to the touch. She had had two bouts of otitis, two episodes of conjunctivitis, frequent colds and sore throats, and had also had an episode of bronchitis with high fever and bronchial spasm.

In this case there was heat (disturbing the yin, sleep, mood, and creating dryness) and phlegm (obstructing the Lung). We can suppose these had been caused by food accumulation in the first months of her life (after an initial Spleen qi insufficiency). Food accumulation obstructs qi circulation and consumes qi, and therefore the defensive qi had been weakened and external pathogens could penetrate more easily and persist, further damaging Lung qi. Phlegm then clotted and internal heat increased, causing repeated respiratory infections and further agitation of sleep and mood. We chose to clear heat, transform phlegm and tonify Lung and defensive qi.

- Tuina: pijing, roufu, zusanli, nieji, banmen, bagua, shou yinyang, xiaotianxin, tianheshui, yongquan, tianmen, kangong, xinmen, tanzhong, xielei, jianjiagu, xiaochangjing, qijiegu and guiwei (also at home daily).
- Acupuncture: Fenglong ST-40 and Taichong LIV-3 (in the last treatment).

After her first treatment Tania developed otitis, a sore throat, a high fever and was given antibiotics (unfortunately the tuina sequences and guasha to apply when the child became sick are not taught until the second or third treatment). Her mother was only able to do minimal tuina at home, because Tania refused to be massaged (we also had difficulty in doing it in clinic). By the third treatment, however, we were able to apply the tuina without obstruction, and at home Tania became less intractable. Tania's sleep became markedly better after the fourth treatment: although she still went to sleep late (around 10pm), she got off to sleep easily and woke only once. She also had no more catarrh, normal stools, and was much more easy-going - even accepting her tuina quietly.

Observations

At publication of this article the results from the Xiaoxiao Centre hyperactivity pilot study are not yet sufficient for assessment. In any case, the project was not designed to gather data for statistical analysis, but rather as qualitative research to observe the effects of acupuncture and tuina on specific symptoms and the general state of children's health. Our experience at the Xiaoxiao Centre has shown

that after six treatments there is generally a change in the children's behaviour and attitude, although the length of any subsequent treatment needed after this varies considerably. Such initial improvement is very important for the child, their parents and also the practitioner, since it helps all to proceed with confidence and determination. Generally, the more serious the condition, the more important is both the parents' engagement with treatment, and our cooperation as practitioners with other professionals.

We have found that the children's (and parents') attitude towards treatment varies considerably, and can be diagnostically relevant. Treatment tends to be relatively easy with children where the agitation is coming from heat, while resistance and refusal are more frequent when phlegm obstructs qi and the Heart portals, or when qi deficiency makes it difficult for the child to face new situations.

We would also like to make the following observations:

- In order to successfully treat children in this way, it is necessary that practitioners have an awareness of qi, which means being able to feel what is happening when a needle is inserted (to connect with the qi and move it) or when tuina is applied (tuina is not a 'physical therapy', but acts through qi).
- Human beings – and children in particular – generally appreciate new experiences. Recognising the strange sensation of a needle connecting with qi can be one of them. We therefore recommend that practitioners allow this experience its own space, intensity, value and meaning. The treatment space is different from daily life, with an distinct atmosphere of its own, and even overactive children tend to easily connect with it (just like when they sit enchanted by a theatre show).
- Not all children like to be touched immediately: as practitioners we should get permission before we enter their space (depending on the child's age this might be through body language or verbal interaction). At the same time, however, if the child is restless we must maintain a clear intent and determination, whilst being respectful, soft and avoiding clashing with the child. Thus our yi and zhi stay clear and solid.
- Making a therapeutic alliance with the child's guardian is essential. The more we feel that a parent lacks faith and is obstructive - even to the point of sabotaging the treatment - the more we can find ourselves in a place of anxiety, uncertainty and fear. We should therefore try to understand the underlying implication of the child's condition for the parent – that if their child has a problem, it means they are not good enough.
- When results are poor or slow, it is important to remember that as practitioners we are not all-powerful. Change can take time. Although children are known to respond quickly, some conditions can be demanding. It therefore becomes a matter of sustaining with tenacity a shift in a system that is significantly out of balance.

- And finally, remember that we always learn from our uncertainty and failures.

This paper has aimed to support colleagues confronting similar situations in their clinics, and share knowledge and experience in a field that is as yet too little explored. ■

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Endnotes

- 1 American Psychiatric Association (1994). *DSM-IV, Diagnostic and Statistical Manual of Mental Disorders*. Washington DC: American Psychiatric Association
- 2 World Health Organisation (2007). *ICD, International Statistical Classification of Diseases and Related Health Problems, 10th Revision*. Geneva: World Health Organisation
- 3 *Xiaoxiao* is supported by FISTQ (Federazione Italiana Scuole Tuina e Qigong) and is co-ordinated by Rossella Cignetti and A. Petrarolo, with the contribution of L. Chiesa, D. Cipriani, M. Curioni, C. Foresti, L. Frailich, T. Fusco, G. Marchetti, F. Mariani, S. Mazzoli, E. Panzeri, S. Parma, R. Scaccabarozzi, and M. Valsecchi.
- 4 These cases are discussed in more detail in the book *Pediatria in Medicina Cinese* (to be published in English by Donica in 2011). The names of the children have been changed to protect their privacy.