Deliverance

On the Administration of Chinese Medicinals to Children

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The administration of therapies within the context of Chinese paediatrics is one of the most limiting factors for practitioners treating children in the West. Aside from being potentially uneconomical, acupuncture presents obvious difficulties in administration and compliance. While use of magnets and ion pellets can certainly be useful as adjunctive therapies and are quite easy to administer, it is my feeling that they most often fall short of being a satisfactory treatment modality in and of themselves in all but relatively minor conditions. The administration of Tuina massage is a powerful modality, but can be impractical to do the three or four times a week that is often necessary to maximise its full potential. Due to its intrinsically energetic nature, teaching Tuina strokes to parents untrained in energy work frequently achieves less than ideal results as well.

Given the abundance of literature in Chinese on the herbal treatment of children, I am drawn back time and again to herbal medicine as a potential modality for paediatric clients. Despite this cornucopia of paediatric literature, however, I have been surprised at the dearth of information on actually delivering medications to children beyond the odd prescription steamed in a peach or a mention of a sweetener here or there. As anyone who has ever taken a decoction can imagine, administration of Chinese herbs to children can be a nightmare and parents often balk at the forceful approach or simply grow weary of it and gradually discontinue treatment . In Asia it seems that parents largely just grin and bear it, confident in the knowledge that this torture is good for their child.

As for other delivery systems, many children either refuse or have not yet learned how to take pills, severely limiting the viability of this method especially in infants. Specifically paediatric proprietary medicines in powder form such as *Hou Tsao San* and *Hui Chun Tan* are often easy to administer. They tend however to be expensive for extended administration in chronic conditions. Also, while the beauty of such formulations is their generality and universal utility, situations which require more precise prescribing are not uncommon. Neither is it rare for a child to refuse a bottle with *Hou Tsao San* dissolved in it. Dessicated extracts too are often met with low compliance due to the tendency of the granules to stick in the back of the throat and mouth, much like a mouthful of sand. In short, while all of these methods sound nice in theory, compliance in clinical practice leaves something to be desired.

The advent of Chinese herbal tinctures holds a great deal of promise and I think that their utility will increase with more sophisticated extraction techniques. As it stands now, however, it is my feeling that they fall far short of the potency of decoctions or even simply bulk powdered herbs administered in low doses in gelatin caps. Many of my adult clients have also confided in me that they simply double my recommended dosages when taking tinctures, which seriously compromises the cost effectiveness of this approach. While the cost to dosage ratio is more reasonable in children, I have frequently found tinctured phlegm-resolving formulae to be inadequate in resolving those deep phlegmatic respiratory conditions so common in children during the winter. Tinctures however do seem to be quite adequate for maintenance dosages and constitutional work.

A few years ago, having grown frustrated with the failure of tinctures to achieve any meaningful result in a three year old client with a particularly nasty case of bronchitis, I resorted to prescribing a decoction. Chinese babies and parents notwithstanding, I had always winced at the thought of feeding a child a herbal decoction, but the child's mother was desperate to keep him off another round of antibiotics and so seemed willing to do whatever it took to see her son recover. She reported back a few days later that he was much improved and in fact the situation was resolved in short order. When I inquired as to how she had fared in administering the medicine, I was surprised to hear that there had been no problem. It seems her son had grown accustomed to to the ritual of receiving tinctures via a dropper and that any medication was acceptable as long as it was administered in this way.

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Taking this ball and running with it, I have prescribed decoctions for children delivered via dropper with great success and compliance ever since. A small amount of a comparatively dilute liquid squirted into the mouth is often much more acceptable to children than the prospect of swallowing

even a few teaspoons of the same liquid. Even children who balk at the bitterness of tinctures largely do better on even rather bitter preparations administered via dropper, probably because they are non-alcoholic and generally still taste milder than tinctures. Strange as it may seem, compliance via dropper is higher than any other form of delivery I have come across, even when numerous droppers are administered at a given time. It is by far the most effective method of administration I have used and it allows for the utilisation of a full medicinal repertoire as well as individualised modification.

My personal preference is to decoct a prescription in 2-3 cups of water, simmer it down to one fairly thick cup of liquid and strain it. One cup can last up to a few weeks in infants. As the condition improves and/or evolves, I often end up wanting to modify a prescription before the patient has finished with a given batch. In this case I will typically just write another prescription. Working with the dosages necessary to end up with much less than one cup of decocted liquid is somewhat tedious and difficult, and given the low cost of this approach I have no problem with simply doing a fresh decoction. On the other hand, if all that is required is a minor addition, it is a simple matter to add an ingredient or two to the existing decoction for another 20 minute cooking. I suggest that the parent keeps a few days worth of the medication in the dropper bottle and refrigerate the rest to prevent spoilage. The issue of mould growth in bulk medicinals themselves and in decocted prescriptions is not to be taken lightly. Once or twice during the summer I will get a call from a client that a prescription has suddenly ceased to be effective and tastes funny. This is generally because a prescription has begun to ferment.

Doses of each ingredient for infants rarely exceed 3 grams and doses of 3-6 grams of the primary medicinals are typical in children up to age 12. This is my own personal preference. Chinese paediatric texts seem to vary widely on this matter however, and it is not uncommon to see a classical prescription with typical adult doses used for paediatric purposes. The amount which the child actually receives at a given time is however reduced accordingly.

Using this method, infants receive 6 or 8 drops of decoction 2 to 6 times daily, while a standard dose for a two year old tends to be 4 droppers twice daily. Older children may receive as much as 8 droppers 4 or 5 times daily in a severe acute condition. At that dosage the psychological utility of dropper administration over simply drinking the same amount of a bitter brew in a cup is evident. 4 droppers amounts to about 1 teaspoon. I am defining a dropper here as what can be squeezed into a dropper with a single squeeze of the bulb. This usually fills the dropper about halfway. Dosages via dropper are clearly on the low end of the spectrum even for children. Considered in terms of dosages by weight, if a 120lb (55kg) adult regularly receives 2 cups of medicine per day, a 30lb (13.5kg) child should then receive around a half cup of medication per day. Only rarely have I found it necessary to prescribe that amount of medication. Even the dropper dose for older children falls far short of half a cup per day.

One of my clients, though pleased with the positive effect that decocted Chinese herbs had on her daughter, commented somewhat sceptically that the dosage seemed minuscule when compared to what she herself was taking. While I have no definitive explanation for this, it is clear that children have had less time to build up resistances to any intervention, be they helpful or harmful, and so an influence almost homeopathic in nature if often as good or better than a more material approach. It should be mentioned that these dosages are by no means written in stone, and are offered here only as initial guidelines in prescribing. Some children will need larger dosages than others, based on a wide range of variables including their overall health and the severity of the condition, not to mention the amount of allopathic medication the child has taken or is currently taking.

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In most conditions I advise against sweetening the formula to make it more palatable as I tend to be concerned about the cloying effects of most sweeteners on the relatively undeveloped digestion of children. Chinese practitioners however are often more sanguine with respect to this issue. For instance, in a discussion on paediatric diarrhoea, Meng Zhongfa[1] on the one hand advocates the use of no more than 3 grams of Licorice (Gan Cao) per day, lest it cause Qi distention[2]. Clearly the use of Licorice expressly for purposes of sweetening a prescription is not without its potential pitfalls. On the other hand he allows for an "appropriate amount" of glucose to be included in a prescription for diarrhoea accompanied by undigested food in the stools. Many practitioners in fact seem to find it acceptable to sweeten prescriptions with sugar. As a matter of practicality, if some sort of adulteration is the only way the child will take the medication, then this is obviously better than nothing. Yin vacuity patterns, particularly those of the lungs as seen in some types of late stage bronchitis, are among those most amenable to sweetening. This is because the medicinals used in the prescription themselves tend to be sweet. Mothers will often tell me that they have tasted the decoction and want to sweeten the brew because it tastes bitter to them. This is not necessarily a reliable measure of the child's taste in these matters, and I will often try to encourage the parent in as diplomatic manner as possible to first try to administer the prescription unsweetened.

I find that barley malt sugar is often preferable to honey if a sweetener is to be used. The sliding nature of honey makes it a poor choice for children with chronically loose stools. Small amounts of medicinals such as Semen Dolichos (*Bai Bian Dou*) may be included in the prescription to offset the tendency of barley malt to produce dampness and heat, and to further regulate the digestion. Honey is a good sweetener in cases of consti-

pation due to stagnant heat and yin vacuity where its moistening and sliding qualities can enhance the effect of the prescription. If sweeteners are to be used, I do recommend that they be added to the decoction during the original cooking rather than being added to each individual dose. This at least appeals to my aesthetic sense in that the tastes all then have an opportunity to meld, and on a pragmatic level this approach seems to reduce the overall amount of sweetener which is added to the formulation.

The only delivery system which seems to work for every child is homeopathic and that is entirely another realm of exploration. I have come full circle in simply modifying the time-honoured methods of taking medicines used in traditional Chinese paediatrics to make them more palatable for my Western clients. This is not the final word on giving medicines to children, or at least I hope not. If we are going to successfully bring the full potential of traditional Asian medical systems into the 21st century, we will have to come up with more sophisticated methods of delivering our therapies to our clients, and these must be at least as effective as the traditional forms of delivery.

References

1. A well-known paediatrician from the People's Republic of China.
2. From *Ming Yi Te Se Jing Yan Jing Hua*, published by Shanghai Chinese Medical Publishers 1987, p.269.