

THE OSTEOPATHIC TREATMENT OF ACUTE DISEASE IN INFANTS AND CHILDREN

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It is said that the final test of any therapy is at the bedside of the acutely ill patient. The treatment of acute disease in the infant or child adds an element of responsibility and skill over and above that required for the adult. Palpatory and diagnostic skills are often stretched to their limit. An attempt is made to determine the somatic manifestations of the disease in question, in the delicate surface soft tissues and abdominal structures, in addition to the detection of cardinal signs and symptoms.

Primarily, the operator is called upon to palliate the acutely sick infant or child. Initially the treatment is directed to easing pain, controlling temperature and maintaining the vitality of the patient while the disease runs its course. At the same time one hopes to prevent morbid and other undesirable changes taking place. Subsequently and of fundamental importance, the aim is to build up the constitution of the child and encourage the development of immunity. This will require and depend upon the proper functioning of the sympathetic and parasympathetic nervous systems. All discussion, therefore, of the treatment of temperature, secretion and glandular function is through these systems, whether applying manipulative treatment and/or the invaluable adjunctive administration of hydrotherapy and body compresses.

It should also be noted that the judicious use of antibiotics, for example, where the presence of beta haemolytic streptococci are detected on dry swab throat cultures, does not diminish the value of supportive Osteopathic treatment. It could spell the difference between a serious hospital emergency as opposed to a relatively rapid resolution of symptoms. There is rarely, however, any justification for the routine administration of antibacterial medication. In most instances the infectious agent is a virus and the chief requirement is timely supportive and preventive treatment with the aim of preventing opportunistic secondary infections and complications.

Febrile changes due to general alterations in metabolic activity tend to obscure local palpatory findings such as temperature changes, skin moisture and pain. The detection of soft tissue and spinal dysfunction during biological invasion is made more difficult, therefore, because it depends largely on the palpation of motion abnormalities and tissue elasticity.

In differentiating the normal from the abnormal, areas of heightened soreness and tenderness are the most easily elicited, when the patient is not too young or moribund to respond verbally. However, all too often in the critical case one must rely, when at the bedside, almost entirely on detecting arrhythmicity and points of soft and hard tissue resistance. To do so without undue strain and tension in the operator nor pain to the child, calls for the use of techniques that are somewhat unique in the Osteopathic armamentum.

Many of these methods seem to have long been forgotten and often come as a surprise to the recent and

not so recent graduate unfamiliar with Classical Osteopathy. Nevertheless, for those regularly called upon in General Practice to treat acute infectious disease in the young, the power and effectiveness of such treatment continues to evoke profound respect for its ability to reduce a dangerously high fever, relieve pain and enhance the body's immune response.

However, while all Osteopathic treatment is should be based on mechanical principles, unless means are employed which promote a profound and ongoing physiological response, it is little more than massage, physiotherapy or the placebo effect. To that end it has long been observed clinically that any leverage must be focused against precisely applied points of fixation, maintained by the operator's second hand and fingers. Failure to establish this correlation results in ineffective treatment and a meaningless 'waving about' of limbs. There will be little or no significant effect neither on spinal cord grey nerve cell centres nor on the sub-costal sympathetic ganglionic chain.

Palliative treatment is often all that can be done until the deep-seated cause of the acute condition is properly interpreted. Treatment in the acute fevers must often be given frequently, therefore, perhaps every 15 minutes until the febrile crisis. It should be noted that such treatment is rarely more than 3-4 minutes in duration, is highly specific and does not involve extensive articulation of distant areas of the body anatomy.

Lastly, it must be stressed that effective palliation is all but impossible unless the source of somatic irritation is sought out and ameliorated. Only then can an attempt be made to control the nervous system and quieten the

functional irritation that has been created all over the body by the febrile process. This can often be done very effectively by inhibition over the coeliac plexus followed by spinal inhibition to check sympathetic irritation and rhythmic treatment to induce deep and superficial circulation exchange and equilibration. It is taken as understood that all solid food should be withheld during the fever; osmotic equilibrium and hydration being maintained by the administration, by spoon if necessary, of unsalted vegetable broths or diluted pure fruit juices.

It is hoped that the following far from exhaustive series of illustrations will stimulate interest in this all too neglected but fundamental field of Osteopathic Medicine.

Points of observation in regard to Bedside Technique

a. Some of the most valuable treatment is the least invasive and most unspectacular. It takes the form of one or two minutes of either stimulation or inhibition, the length of time of application being determined by assessment of the patient's reaction. Too long a treatment tires the system, defeats its own purpose and would destroy the first effects. Note particularly that after inhibition has been given for more than a very brief period it becomes stimulation. This is determined by the tissue reaction to the palpating finger. With the change in movement there is a sensation of sticking to the tissues and it is at this point that the treatment must stop.

b. Heavy treatment or a heavy touch is always contra-indicated and all treatment should be specific

c. Tissues should be coaxed and not compelled to relax and the lesion corrected rapidly and specifically employing only a gentle 'thrust' (for want of a better term) or repeated

short 'tap'. The amplitude is always low, as in the safe treatment of the adult, and requires total control to ensure the ability to withdraw at the last moment, if called upon, in the interests of safety. A gentle rotation or stretching of the tissues under mild traction is the essence of the technique.

d. The child must be held in such a way that he/she has complete confidence. Fear of being hurt or of falling will make effective treatment almost impossible as the child struggles to escape.

e. The hold must be firm but quite free of gripping in order to avoid tissue bruising and subcutaneous damage.

f. Tension at the point of movement must be finely judged, localised and the strength of the 'thrust' carefully assessed. Often with small children all that is necessary is to hold the point of tension and with only a slight degree of increased pressure the lesioned articulation will be felt to move freely.

g. In small children and infants one cannot rely upon the patient's own body weight to supply the resistance and it is therefore necessary to supply both the force and counterforce.

h. Risk of damage to un-ossified and un-united epiphyses must be avoided especially in using arm and shoulder leverage.

Illustrations

1. Even infants and quite small children are handled conveniently on the lap enabling the child to continue to observe its mother whilst also having its hands held lightly for reassurance.



The first illustration is of the Lymphatic Pump Technique, a manoeuvre that stimulates vigorous lymph flow into the venous blood stream via the thoracic duct. Gentle, firm and rhythmic pressure is applied by way of the operator's hands spread round the child's thorax, fingers placed proximate to and just below the clavicles. The pressure is directed towards the sternum and applied downward and caudally with the child's exhalation

and relaxed with inhalation. There is an accentuation of the normal respiratory rate (approx. 40 per min. at 2 years, 30 at 4 years, 20 at adolescence but, in the last analysis, the rate being determined by the tissue resistance under the operator's hands. (Note that the thymus lies proximate to the upper sternum).

The child is held back against the operator's sternum to establish a firm point of opposition and stabilisation. This invaluable manoeuvre can also be performed on the supine child as illustrated in photo no. 18.

2. Treatment can be continued on the lap with the child now facing the operator and encouraged to drop his arms to ensure relaxation. The operator reaches round both sides of the thorax to make contact with any of the



costo-vertebral, thoracic and lumbar structures while the palms simultaneously introduce lateral, oblique, flexion, extension and torque forces via the lateral aspects of the ribs. The child is gently lifted, simultaneously, to introduce the additional component of traction-extension.

3, Traction-extension is further exaggerated to the point when the toes are lifted off the ground.



4- Perhaps the most valuable and efficient of Osteopathic paediatric, diagnostic and treatment positions is with the child placed prone across the operator's open knees, the child's head and arms encouraged to hang loosely. The operator is afforded the greatest possible access to all the thoracic, lumbar and pelvic structures while incurring the minimal strain to himself. While rhythmically opening and closing his knees, to induce alternate flexion and extension in the child's spine, the operator's palms and fingers can introduce simultaneous forces of flexion.

extension, torque and points of fixation. The fingers remain tree throughout the manoeuvre for the application of 'micro-fulcra' along the whole length of the spine and pelvis, excluding the cervical area.



5. A further application in the prone position, using a single leg leverage directed to the low back and pelvic structures for diagnostic, articular and corrective purposes.



6. A similar principle of use now employing rhythmic, oscillatory arm leverage against gentle but precise points of fixation, the operator's other hand stabilising spinal and paravertebral structures, as required. Care is taken to avoid all strain at epiphyseal sites by appropriate handholds enveloping the whole articulation.



7. The examination/treatment continues caudally once more and bilateral leg leverage is applied, with or without simultaneous use of knee movements by the operator, to introduce flexion and extension against the constantly adapting points of fixation of the operator's hand and finger fulcra.



8. Bilateral leg leverage can be used in the infant and child to reach as high as T1-2, the spinal articulations being 'switched' via rhythmic, oscillatory, side-to-side and torque leverage played against the operator's fingers straddling the articular processes to obtain gentle fixation. The cervico-dorsal junction remains a frequent source of attention because of its neurological and mechanical relationship to the subclavian lymphatic duct and venous vessels, especially on the left side and the right side in relation to the drainage of the head structures.



9. Treatment is continued with the child turned to face in the opposite direction.