

Can Shiatsu be helpful for chronic pain?

(Dr. Eduard Tripp)

Pain is an alarm signal and has absolute priority over all other perceptions. Pain indicates injuries and disorders of the body and threats for the integrity of the organism. It penetrates all psychological levels of experience, takes hold of the whole person and can fully control them. The sensation of acute pain, mostly in the area of a local pain source, dominates. It is mainly accompanied by fear and fear-typical reactions such as an increase of the heart frequency, the blood pressure and the vessel and muscle tonus. In comparison to that, chronic pain (permanent or returning pain over a longer period than six months) often has even more severe consequences. Chronic pain is mainly accompanied by depression and deactivation. Bad physical sensations and inefficiency can manifest in forms such as sleeping disorders, loss of appetite, loss of weight, being exhausted, sexual disinterest, etc.

There are many causes for pain. If one works with people that suffer from pain, it is of fundamental importance to understand the reasons for the creation of the pain. From the perspective of traditional Chinese medicine, the obstruction of the circulation of qi and blood is the central aspect. "If the meridians are free", the saying goes, "there is no pain; if they are blocked, there is pain". The patterns of disharmony that, according to TCM, lie at the base of pain are differentiated in fullness and emptiness patterns. Patterns of fullness are connected to the penetration of outer pathogenic factors, inner coldness or heat, qi and blood stagnation, obstruction through mucus or stagnation of nutrition. Patterns of emptiness are connected to a lack of qi, blood or liquids.

Chronic pain

The signals coming from the pain receptors are evaluated consciously by the cerebral cortex and emotionally by the limbic system. As a reaction to pain stimulations, many informative and healing processes happen within the body. Instinctive reflexes, such as avoiding danger and having a protective posture, prepare the immune system and the cell-repairing mechanism to become active. At the same time, the brain is processing the pain impression. What happened? Where exactly does the pain come from? Is the source of pain a threat for life? Could there be more pain coming and how can that be avoided? Is this kind of pain already known? And, according to the results of this evaluation, the pain is experienced and put into categories ranging from meaningless to massively traumatic.

Pain that is light, short term and has a foreseeable end usually doesn't disturb very much; while pain that is strong, lasting and has no concrete end to it, inevitably leads to changes of the mood, thinking, planning, experiencing and acting. Chronic pain wears us out and often leads to fear, depression, physical complaints and pain related behaviour such as withdrawing from family, social and professional activities.



From a neuropsychological viewpoint, one of the possible reasons for the creation of chronic pain could be the so-called pain-memory. In this case the enhanced pain-sensitivity comes from a small group of nerve cells in the spinal cord. These are activated after a very strong stimulation (such as inflammation, operation or accident) and change lastingly through a chemical transformation process. Similar to allergies, these nerve cells are now over sensitive and ready to react to a meaningless stimulation with severe pain. Additionally, the pain perception spreads out into areas of the brain that, before, didn't have anything to do with the body parts concerned. If only the hand was hurting previously, it is now the whole arm. The cells that process the pain "remember" the continuous signals and announce pain even when the original stimulation fades out. The organism has been reset to 'permanent alarm' status.

Also, at the time of a traumatic event, the psychological condition and social factors (e.g. stress in the profession, problems in the family, depressive disorders) can play a decisive role in the

development of chronic pain.¹ That's why psychotherapy is often part of the treatment for people that suffer from chronic pain. The goal is to release the often-tight connections between the psychological aspect and the physical pain. The therapeutic path leads – parallel to the medical pain treatment – away from the passive suffering into the active control of the pain and reorganization of life.

Psychodynamic hypothesis especially emphasizes the communicative aspect of chronic pain. It understands the phenomena of pain as a call for help and pain fixation as an expression of rejection. The withdrawal that comes with the pain can enhance narcissistic tendencies of isolating oneself. Additionally, low self-esteem of many chronic pain patients restricts possibilities to create one's life in a satisfying way. The tendency to have physical complaints ("tendency to somatize") fits into the picture of chronic pain patients who have remarkably limited social contact. In this way the pain symptomatic can also start having a relieving and alibi function for not realizing goals in life.

Theoretic teachings also assume that chronic pain is enhanced by compassion or other positive attention. Additionally, "unfavourable" pain-behaviour (such as protective postures or the use of pain as a better accepted alibi for other, less tolerated deficiencies) is promoted by means of the restriction of alternative ways of behaving.

Symptomatic and source treatment of pain

It is very important to soothe pain as quickly as possible, because pain strongly stresses the person concerned. The ongoing symptoms can lead to many secondary problems and complaints; however, one should never treat pain without dealing with its sources. Speaking metaphorically, it doesn't make sense to turn off the fire alarm without dealing with the fire. Although, in some cases the alarm doesn't stop even when the fire has gone out.

One should treat pain symptomatically when it isn't a useful alarm signal anymore, e.g. a neuralgia that follows a shingles disease (herpes zoster). In other cases, such as arthritic knee complaints, the pain has a useful function. Here it would be fatal to simply get rid of the pain, because continuing to use the knee in a normal way would increase the problem.

¹ Hasenbring and Klasen (2005) quote an investigation from Raspe & Kohlmann from the year 1993, according to which about 37 percent of people affected by back pain develop chronic- or returning pains. Klenerman et al. (1995) found out, that it already shows after two months who is endangered to develop chronic pain. The predictions, which indicate an unfavorable development, are unfavorable strategies for dealing with stress, psychological burdens in the daily life of profession and family as well as depressive moods (but not psychiatric depression). It is suspected that regarding the back pain the decisive psycho-biological connection lays in an increase of muscular tension, especially in the muscles of the back that are relevant to the symptoms.



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Sometimes, soothing the pain is the necessary first step in the direction of normalization and health. In some cases, pain reduction is enough and the organism takes care of the rest by itself; however, in most cases, following the initial soothing of the pain one needs to work with the sources and circumstances that lie underneath. This might mean surgical operation, treatment with medications, change of diet, manual treatment or other methods. When the pain doesn't exist anymore or is less dominating, further treatment is often possible.

Including alternative methods in the pain treatment

In multi-disciplinary clinics, complementary approaches are included in the therapy of pain; because even if these treatments don't directly contribute in fighting the pain, there is use for them regarding empathic attention and for the feeling that the pain is being taken seriously. Another important factor is the possibility of actively doing something for oneself.

One of the best methods against most chronic forms of pain, and here medicine and society have the same opinion, is regular movement. Movement increases the circulation, keeps the muscles flexible and the tendons supple, and lifts the mood by releasing endogenous hormones. In Chinese terminology one could say that qi and blood are being supported to flow freely and without restrictions. That's why qigong and taiji are often included in the therapy of chronic pain.

The influence of relationships on the experience of pain

Pain as a reaction to relationship crisis or loss is not imagination. People don't only react psychologically but also experience a mobilization of the emotional pain center through neuron biology, especially if others have excluded them from the community in a way they can't understand. There has been research done that says the brain only vaguely distinguishes between social pain and physical pain. Additionally, people that feel left alone experience physical pain stronger than people that receive human support and that feel safe and cared for.²

Permanent pain leads to a measurable heightening of the endogenous opioid release, connected with an increase of the loading of their receptors. If one tells a test person that they are going to get a pain relieving medication, although what they're getting is a placebo (a fake-medication that doesn't contain any active substances), this leads to a clear subjective bettering and to an

² A good relationship (and therefore feelings of binding on this level) leads to a release of endogenous opioids, oxytocin and dopamine – and therefore makes pain more bearable.

objectively provable highthening of the endogenous opioids. That proves that inter-personal attention has the potential to activate the endogenous opioid system and to soothe complaints.³



The effectiveness of placebos⁴ for pain and their effect on the brain has been pursued with the help of magnetic resonance imaging. The activities in the brain regions that are involved in processing pain (the so-called “pain matrix”) mirror the intensity of the unpleasant sensations quite clearly. The insula and the thalamus are more strongly supplied with blood when the test person feels strong pain. When a supposed pain-relieving cream is applied, the pain isn’t felt as dramatically. This study also indicates that placebos work especially if one believes in their effect. The test people were “warned” shortly before they received an electric pulse. The brain scans showed that the blood circulation in the pre-frontal cortex changed in the short time

³ If the soothing effect of oxytocine stays away as a consequence of major interpersonal crises, the stimulating neurotransmitter is released and activates two alarm centers that lay deeper in the brain. Stress-genes are released in the hypothalamus – with the consequence being the level of the stress-hormone cortisol in the body is being increased. Through the glutamate that is released in the amygdaloidal nucleus, there is, amongst other things, a release of noradrenalin in the alarm center of the brainstem, which activates the “panic orchestra of the body” (including heart, circulation system and psyche).

⁴ One can regard everything as a placebo that has a positive effect on health, without it being based on a tested medical substance or a tested method.

between being warned and actually experiencing the pulse. This brain region always becomes active when the test person is expecting an electric impulse that is muffled due to a cream that is supposedly a pain reliever.⁵

Fear and trust

Pain is created at the point where two forces meet each other. Pressure by itself isn't painful; it only hurts if there is counter pressure. If the wall, which one is banging against gives in, it doesn't hurt; but if the wall is solid it will hurt, depending on the force of the blow. If we want something from another person which he/she refuses to give, we experience pain and, as a consequence, maybe anger and sadness. The degree of the injury is dependant on how strong the desire and the rejection are.

Physically, fear expresses itself as tension; therefore, relaxation happens with the releasing of fear. That's one of the reasons why autogenic training is so effective against fear. If we are relaxed, we are not afraid. If we learn to relax, we learn to deal with our fear and to control it.⁶

In bodywork we can experience how painful a tense muscle is in response to pressure. The muscle can't give in. If it could, it wouldn't hurt. On the contrary, a relaxed muscle is elastic and gives in to the pressure. In that case the same pressure feels really good. If we can totally go into the pain, it decreases and becomes more acceptable. Pain that is created through continuous pressure on a muscle that is in tension and the fear that it might get worse lead to – contrary to the assumption above – more pain. If we give up the resistance and take the risk of being unprotected and embracing the pain, then we might have the experience of the same pressure losing its threatening and painful quality.

People that meditate⁷ speak of similar experiences. If one gives up resistance, if one doesn't fight against the pain anymore and just lets it happen and lets it seep into oneself, then it

⁵ The scientists say that the prefrontal cortex probably lessens the reactions of the pain matrix. It seems that the neurotransmitter dopamine plays an important role for the effectiveness of placebos. Dopamine is released when one counts on being rewarded soon, so that one won't give up so close to the end. Placebos might work because they stimulate the production of dopamine and also of pain-relieving endorphins, if one believes in them. In 2001 two Danish scientists (Hrobjartsson, A. & Gotzsche, P.C.: Is the Placebo Powerless? In: New England Journal of Medicine 344, 2001, S. 1594 – 1602) questioned the effectiveness of placebos and found that there weren't any significant differences between the placebo group and the "untreated" group. However, their interpretation of the facts is being doubted because the "untreated" group was also being cared for intensively. Rather, their study is being interpreted in the way that one doesn't need an injection or a sugar pill to create a placebo effect.

⁶ How we deal with pain has also changed in our society through time. One used to understand pain as something useful and necessary. To add an example: In the 19th century, the use of chlorophorm during the process of giving birth was seen as a sinful intrusion into the birth-pain willed by God. Pain made sense and the individual pain was absorbed in the suffering of the idols and in the certainty of being healed. In the context of Christian mysticism it was understood as internal "crucifixion", something that hardly finds recognition and understanding today.

becomes more acceptable and one can feel a completely different dimension of experiencing. So, mastering pain isn't only dependant on the elimination of what triggers pain or the interruption of the pain transmission.

One can interpret the study results in this way: Attention to discomfort can build confidence that can soothe the pain experience. Therefore, one of the main access points for pain relief is a calming, trust building Shiatsu encounter. This Shiatsu experience unfolds mainly through its potential of strengthening the inner, psycho-physiological core of the treated person by means of giving warmth, rhythm and continuity.⁸

Shiatsu helps in letting go and incorporating trust in order to accept "what is already there". Shiatsu is, as a client once expressed it, a "practicing to let go through trust". With the help of accompaniment (and sometimes also guidance), trust in the person's own body and the ability to accept what is happening is strengthened. One of the main aspects is the inner certainty that we are " bigger than what is troubling us", leading us to the secure knowledge that we can master our destiny and direct it to a certain extent. We are never completely autonomous masters of our destiny, but we are also not helplessly at its mercy.

That we can guide our life and give it a direction is one of the main aspects in (bio-psycho-social) therapy when working with painful conditions. The practice of influencing our own destiny is very decisive regarding whether we stay healthy or become ill. Shiatsu can have a big contribution to this.

Translation: Zoe Binetti

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⁷ MBSSR ("awareness based stress reduction"), which was developed by Jon Kabat-Zinn (University of Massachusetts) on the basis of Buddhist awareness meditation, leads to significant bettering for chronic pain patients (the result of research by Paul Grossmann, university clinic Basel and Christ of Nachtigall, University Jena). The effect of awareness meditation is explained with the recognition of automatically happening reaction patterns (that means that there is an additional step between the stimulus and the reaction).

⁸ In the approach of G. Bartl (1984, 1989), warmth, rhythm and continuity form the main qualities that need to be charged in the early life of the infant, so that there is a solid base for the harmonious maturing and development - and therefore also gives good conditions for psychological and physical health.

With its physical-emotional approach Shiatsu strengthens warmth (through the caring and attentive touch), rhythm (through the rhythm of the work and the strengthening of the rhythms of the body) and continuity (through the setting that stays the same in the core and the consistent support). Through that Shiatsu gives, if it is applied in the right way, the necessary conditions for self-regulating mechanisms, which support and promote health and development.



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