

The Shao Yang connection to the Nervous System

There is no clear representation of what we now call the nervous system in Chinese Medicine. In TCM, nervous system pathologies will be often associated with the Liver, and explained as lack of smoothness of Liver Qi, or deficiency of Liver Blood affecting the Shen. The Pericardium, the Liver's Jue Yin partner, is also associated with Shen disorders, due to a traditional acupuncture view that avoids of using the Heart, and even in the use of herbs, the Pericardium will feature in herbs that treat excess patterns, while the herbs that penetrate the heart will tend to be more blood nourishing.

This Jue Yin model is one that can be quite useful clinically, but there are certainly other models, and exploring those helps us find greater flexibility and more options when we look for treatment ideas. When it comes to “translating” the current ideas of the nervous system to “our language,” to something we can apply with our modality, it is important to have as many tools as we can, because when we talk about the nervous system, we are talking about pain and pain perception, as well as many other ailments that patients seek relief from, like insomnia, anxiety, depression, stress, etc., and as most of us tend to see clinically, the nervous system affects all other systems, and is often quite primary in treatments of almost any condition.

In an effort to keep expanding our models, and hence our tools, I would like to offer the Shao Yang channels, as another model that is related to the nervous system, to the brain and to the Shen.

Apart from the familiar Shao Yang as the pair of Jue Yin, what are the theoretical bases for associating these channels with the nervous system?

Shao Yang acts as mediator, between hot and cold, outside and inside, calmness and excitement, movement and stillness: this mediation, this excitability, triggering, is something we associate with the nervous system.

When we look at the mediation of inside and outside, we see the nervous system as mediating the experiences of the centre and that of the periphery, and coordinating the two. Therefore it would be natural to think of having a central as well as a peripheral (or side) representation of it.

We might say that the Du channel, with its connection to the brain and spine, represents mediation directed towards (or coming from) the centre. The character Du, 督, has the eye (目) at the bottom, and above is the character for a young uncle (叔), which in turn is composed of a hand (又) that is collecting the beans (尗), together it means to supervise to watch over the work of gathering the beans. Note that there is the connotation of some younger brother here.

Supervisors, or Governors, appears like they have lots of power and control, but they are still working for the Emperor, under the direction of the Emperor. The emperor will tend to appoint governors who are loyal to them, perhaps a younger brother or some cousin, who will be strong and do the job in their appointed territory, but will not get too strong and topple the emperor.

In the body we have two systems that can be thought of as Governors who have a loyalty to an Emperor: the endocrine and nervous systems which are “subservient” to the brain. And the brain itself is a “relative,” a big brother, of the endocrine and nervous systems, because it is itself a bundle of nerves and endocrine signals.

So while the Du can be a representation of the idea of the nervous system representing the centre, the Shao Yang, the side channels, can be thought of as the representation of the mediation of the periphery. And, we also have a famous paradigm that suggests treating the side/periphery for issues the centre. Hence the Shao Yang fits the idea of treating the brain and nervous systems in that respect also, and of course these are channels that have a close relationship with the brain, as

seen by the number skull points, their names, the designation of the Gall Bladder as an extraordinary Fu, like the brain, the designation of a Gall Bladder point (39) as the Gathering Point of the Marrow, and the San Jiao Divergent's connection to the brain.

Although it is also possible to see the Shao Yang as representing the endocrine system, I tend to see this expressed practically more in the Tai Yang channels of the Bladder and Small Intestine. The San Jiao coordinates the movement of the 3 Jiaos. Which means it also relates to the three diaphragms: the vocal cords in the throat which is at the top of the upper Jiao, the respiratory diaphragm, which is the top of the Middle Burner, and the perineal diaphragm which is the lower edge of the Lower Burner. (There is no clear membrane/diaphragm between the lower and middle Jiaos.) These 3 diaphragms are highly correlated to the state of the autonomic nervous system. At the throat we have the vagus nerve, at the diaphragm we have the phrenic nerve, so these two regulate our breathing and nervous system. The lifting of the perineal floor, activates the sacral parasympathetic ganglia and allows for tension and anxiety in the chest to be released.

The Jiao (焦), in San Jiao, is supposed to mean charred or burnt, and San Jiao means the 3 burning spaces. The character Jiao is a bird (隹) roasted on the fire (灺). But its common use tends to mean anxious or worried, as one would be if one were a bird being roasted.

The 3 Burners are also 3 spaces where anxiety, over activity, can take place: the chest, the stomach, and the gut. Most of us will tend to say we feel our anxiety in one of these 3 spaces. Ling Shu 4 describes symptoms of the San Jiao as similar to ascites, with Jiong Ji (窘急), that is distress and anxiety, or urgency. We can see that the San Jiao is especially related to the nervous system, to anxiety, distress, worry, and a sense of being hurried.

S.J. and G.B. Scalp Point Names in Relationship to the Nervous System:

When we look at the names of the San Jiao points around the ear we see some unique ideas. These are S.J.18 through 22.

S.J.18, Ji Mai (癡脈), the Madness Pulse, can be interpreted in different ways.

Ji, 癡, means furious, mad, and also malaria. It is composed of the disease radical (疒) and inside it is the character Qi (契), a deed, or a contract, the carving of measurements. It is as if you have a contract with a disease, the disease has been carved into you.

This is the only time we see the disease radical in a point name, making S.J.18 rather unique.

Patients that appear to have “contract” with disease, being stuck in a disease, often have nervous system issues. It is hard to evaluate if a weaker nervous system predisposed them to the disease, or if the prolonged disease has worn down the nervous system. What is clear is that weakened nervous systems and prolonged disease (especially involving pain) tend to appear in concert.

Both Ellis and Deadman translate the character Ji (癡) as Spasm, or Jerking, but this is a slightly different character, Chi (癇), meaning convulsions. In this case the character inside the disease radical (疒) means indifferent, carefree: it has the Heart at the bottom rather than Big.

Clinically, S.J.18 does treat spasms, and it can be interpreted that spasms come up when there is too much fury in us. The type of spasms can include bronchial spasms as well, or any kind of spasm in a long-term disease.

S.J.18, as “the Madness vessel” treating spasms, may have originally been related to temporal epilepsy which is characterized by hallucinations. It is related to the autonomic nervous smoothing function of the San Jiao.

S.J.19, Lu Xi (顱息), the Skull Resting, suggests that this is where we place our skull when we rest, as when we sleep on our side (U.B.9, the Jade Pillow Yu Zhen, 玉枕, is the equivalent when we lie on our back). Lu (顱) is the container (盧) of the head (頁) The character Xi (息), to rest, is literally the heart underneath the nose, implying that the heart is breathing, resting.

The point is on the mastoid part of the parietal bone. The parietal lobe/temporal bone, are related to the ears and auditory sensations, oral sensations, head and shoulder movements, facial expression and tongue movement, as well as visual recognition. Meaning it is the way we perceive and react to the world, that is the role of the nervous system.

S.J.20, Jiao Sun (角孫), the Angle descendant, is probably named after its location – at the depression where the apex of the ear touches the skull. It is a point with a clear affinity to the autonomic nervous system through the parietal lobe/temporal bone.

S.J.18, 19, and 20 should all be checked and considered as either reflexes or treatment points in conditions that are classified as Shen Disturbance in TCM. They are all in the vicinity of the vagus root at the back of the ear, which Kawai used as a point to treat ears, thyroid, and to release the neck in general and hence the nervous system, and these 3 points can be used for that also.

We then have S.J.22, a point that is overlooked by most of us, but which is a very powerful point for calming the nervous system, and which I use a lot for all kinds of pain symptoms (though the location can vary quite a bit from the official text book location). S.J.22 is called He Liao (和髎) meaning Harmony “Bone Hole”. It is sometimes called Er He Liao, adding the character Er (耳) meaning Ear, because there is another point, L.I.19 that is called He Liao (or Kou He Liao – mouth He Liao). However, the He in L.I.19 (禾) means grain and not harmony. The character for harmony is made by placing the grain next to the mouth – there is harmony when we are not hungry...

The character for Harmony (He 和) appears only in S.J.22, which is a bit surprising given that harmony is such a central topic in Chinese medicine. In spite of that, we tend to pay little reverence to this point.

The character Liao (髎), the so-called “bone hole” is quite familiar, and appears in many point names. However, it is a character that should summon out attention and not be taken for granted. Liao, is composed of the character for a bone (骨) on the left and Liu, to soar (翺 - the flying wings) on the right. Liu also means the sound of the wind. Liao is not just some crevice in a bone, some indentation, but rather something that produces a sound, a soaring, a bit like a conch when air is passed through it. It implies the capacity for amplification, for quick transformation

And indeed, SJ.22 has a strong effect on transforming pain. In the YNSA system (see below) this area is used primarily for cervical (it would correspond roughly to say C6/C7 in the Somatotop I system) as well as for shoulder pain, but I find it to be a worthy point for almost all pain, and I think the Ancients named the point with that in mind.

The Gall Bladder skull points also offer us a view into the nervous system. We can divide the Gall Bladder scalp points into four groups.

The frontal side hairline points, G.B.4, 5, 6, intersect the Yang Ming channels, the Large Intestine and the Stomach channels. (Although the Large Intestine channel is not described as moving up to the corner of the head, though its sinew channel does, and G.B.4-6 are clearly marked as intersecting Hand Yang Ming.) This group seems to suggest an entry to the brain, and keeping the continuity of the brain activity constant.

G.B.4, Han Yan (頤厭), is difficult to understand by name. Ellis translates it as Forehead Fullness, while Deadman opts for Jaw Serenity. Two different interpretations. Both are interpretations, rather than actual translations.

Han (頤) is the jaw, the chin, or to nod. It is composed of the character that means to cherish, or to hold in the mouth (含) – to contain/hold in the mouth, to cherish and the character for head on the right (頁). But the location of the point does not fit the chin or the jaw, except that one can feel the movement of the jaw at the temporal hairline, so perhaps chin or jaw really was the meaning.

Yan (厭) does not mean either “serenity” as Deadman suggests nor Fullness. It is composed of the characters of a cliff (厂) and the character to fill (馱) or to satiate. Its literal meaning is to dislike (or to be disgusted by) . However, the character inside the cliff gives the meaning Ellis suggests, of Fullness. When one adds the the heart to the left of it we get Yan (愜), which means contented or peaceful, hence Deadman’s choice of Serenity. But the character itself, as used in G.B.4 as Yan, means to dislike, to be disgusted by, or bored by.

I suspect that the name Han Yan (jaw dislike) is meant to reflect one’s assimilation of what was taken in by the jaw, the mastication process, and perhaps to suggest that one can now pass judgment, a dislike perhaps, of what has been taken in.

Nowhere does it say that the G.B. enters the brain, and yet it seems pretty obvious that this is “the brain channel” with so many points over the brain, and with names of the head points on the channel. G.B.4 to me is one of those places that intersect the brain, or the brain function, both Shao Yang channels, as well as both Yang Ming channels. It suggests the beginning of the “penetration” into the brain, where we take sensory input.

G.B.5, Xuan Lu (懸顱), is the Suspended Skull, and G.B.6, Xuan Li (懸釐), is the Suspended Centimeter. I see them as similar to G.B.4, representing an entry to the brain, like the pilot light to the consciousness.

The character Xuan (懸) means suspended and is made of the character of the heart and to hang (縣 – an inverted head and a tie). The heart is hanging, is suspended. I take this to mean that the physical heart or the mind are suspended, stopped. So again, an entry gate to the mind as in the brain.

This kind of suspension happens on two occasions, in the case of the physical heart, it is when one has a skipping beat, and in the case of the mind-heart this is related to stroke. G.B.5 and 6 are good supporting point for anyone whose pulse has a skipping beat, with the main point being G.B.39 (懸鐘), Xuan Zhong, the Suspended Bell, Clock.

The second group is the group above the ear, the temporal bone group, G.B.8, 9, and 10. These points also intersect with the Bladder Tai Yang. Here the names suggest synapses, surges, and myelin. This is the area, just above the ear, that we lean our palms against when we are in over-load mode, to soothe and calm the brain.

G.B.8 through 12 are all points that are also on the Bladder Tai Yang channel, on the branch that starts at the top of the head and spreads to the top of the ear. Like the San Jiao points next to them, closer to the ear, they represent the temporal lobe’s function of processing sensory input, language recognition, memory, and context formation.

G.B.8, Shuai Gu (率谷), The Leading Valley, is connected by name with the brain.

Shuai (率) is composed of threads inside a frame, pretty much like synapses inside the skull. Gu (谷), valley, is sometimes used as a shorthand for Yu (欲) meaning desires or needs, which is made by adding the yawn (or need) character to the right of the valley character. This suggest how the neural network perceives or needs and desires.

G.B.9, Tian Chong (天冲), the Heavenly Hub (衝 Chong), or the Heavenly Surge (using 冲 as Chong), also seems to be referring to the neural traffic of the brain. Chong, because it means to charge, to surge, or to dash, does often connote the autonomic nervous system in point names.

G.B.10, Fu Bai (浮白), Floating White, might be a reference to the myelin, the white matter. Fu (浮) to float, or superficial, also means excess, as in to overflow. It could be referring the white looking matter, the myelin of the brain. And of course, the myelin can be said to be floating, insulating the axons.

The third group is at the top of the skull and includes G.B.13, 15, 16, 17 and 18. This is the group that intersect with the Yang Wei and is related to the sea of marrow, to fear, and pain perception. In modern terms we call this the role of the dorsal lateral prefrontal cortex, and the control or regulation of emotions. The ancients might not have had our tools of detecting brain activity, but they probably could observe that when we are freaked out with pain or fear, we feel this area pulsing, and that when we cultivate our awareness, we can shift the activity further back towards the back of the skull and calm down fear and pain.

G.B.13, Ben Shen (本神), is the Root of the Shen. All the frontal hairline points, tend to have a resonance with what we call Shen Disturbance. They affect and calm the brain. The frontal lobe is the area of the brain that determines and modulates our emotions, our responses to sensory input, our capacity, or decision, to amplify or release emotions.

G.B.15, Tou Lin Qi (頭臨泣), Facing the Tears, is another frontal hairline point and is similar to G.B.13. The significance of the characters Lin Qi is that Lin (臨) contains within it the character to lean (臥) or to recline, or to crouch, while Qi (泣), tears, contains the character to stand, so we have both a vertical and horizontal axis. This is significant in G.B.41 which shares the same name (as Zu Lin Qi: Leg Facing Tears) which is the opening point of the Dai, the horizontal, channel.

G.B.16, Mu Chuang (目窗), is the Eye Window. The Window here means the actual frame and the space within it, that is the cavity or orbit of the eye. Besides being used for vision and eye issues, it can also be used to calm the brain.: when we calm the sensory input, the brain can be calmed too.

G.B.17, Zheng Ying (正營), Upright Nourishment, can also mean Fearful or Anxious as an expression, and it affects anxiety, fear, pain perception, etc.

G.B.18, Cheng Ling (承靈), Receiving the Soul, closes off the sequence of Gall Bladder brain points at the top of the head.

The fourth group is the occipital group, G.B.19, 20, and G.B.11 and 12. This is the area related to the autonomic nervous system. The top front relates to excitement and therefore pain perception. The occipital area is the counter area for that, representing parasympathetic feedback. In relaxation, a meditator can feel that the brain is shifting activity from the frontal cortex towards the back of the skull. Meditators are well aware that congesting the occiput increases thoughts during meditation, and stirs the mind. The standard instruction is to drop the chin so as to lengthen the back of the neck, making it easier to calm the mind and allow it to concentrate. This is the Wind area, and Wind means fluctuations of the mind, the mind jumping, not just external wind or immunity. This is the area that calms the wind, calms the scattering of the mind, and hence it is also known as An Mien, the peaceful sleep area.

G.B.20, Feng Chi (風池), the Wind Pool, exemplifies this. The occiput is where the wind – in this case the movement of the mind, the thoughts – pools into. If the occipital area is shortened, crunched, the brain gets locked; it is as if the thoughts are unable to vent out of the brain. This is the area of the brainstem, regulating heart and breathing, as well as the central nervous system and consciousness.

G.B.19, Nao Kong (腦空), the Brain Emptiness, is obviously related to the brain, and like DU17, Nao Hu, the Brain Door, at the same level, it is about the entry to the brain, guarding the brain from too much movement, wind, so it relates to the autonomic nervous system's input to the brain, while the points at the top of the scalp seem to be related more to the brain's effect on the nervous system. In other words, it is a matter of "direction": the front/top is how the brain modulates the response of what has been perceived by the nervous system and gets excited by the already received input (more of a "sympathetic response"), while the occiput is about guarding the brain from too much activity in the nervous system by activating autonomic functions that are parasympathetic by nature.

This is a metaphor and obviously the nervous system and the brain inter-connect and cannot be separated in this kind of dogmatic manner. The purpose of this kind of differentiation is to suggest treatment ideas and applications. G.B.19 may show as a reflex in insomnia, anxiety, and hormonal disorders, though it is more common to find puffiness or pressure pain just below G.B.19.

G.B.12, Wan Gu (完骨), the Complete Bone, is another occipital point. The name refers to the edge of the bone presumably. However, the character Wan, when adding the flesh radical to it, is the same character the Wan in Ren12, 10, and 13, and there are times when to release Ren12 area, one would need to needle G.B.12. Ren12 is related to neurological conditions. Wan is also related to Yuan, Primary (as in Ren4 Guan Yuan, or BL26 Guan Yuan Shu) since it is the character Yuan (元) with a roof (宀) over it.

G.B.11, Tou Qiao Yin (頭竅陰), the Head Intelligence Yin, or Opening (orifice) Yin, is a point that also refers to the brain and input to the brain. It is an occipital point, lying at the junction of the occiput and mastoid. The occiput is like a gateway, or a guard, to the brain. The way the occiput is carried, the relationship it creates between the head, the cranium, and the neck, or the spine, is crucial for smooth brain activity. Congestion of the arteries here can cause dizziness and lack of functioning of the brain. When the occipital area is pushed and congested, the brain

is flooded with thought, Wind, and there is a tendency to day dream rather than to concentrate. So this is where we can infuse ourselves with intelligence (Qiao, 竅 - sunlight emitting, 敷, through a hole, 穴), allowing light into the brain, or be “brain fogged.”

We can thus see that the San Jiao and G.B. scalp points were named in direct relationship to what we now refer to as the nervous system and the brain, and have always been seen as playing an important role in modulating pain, fear, panic, anxiety, rest, etc.

Clinical Application:

Yamamoto mapped the entire body onto this area of these Shao Yang points, naming this map Somatotop-I.

I use a partial Yamamoto Somatotop-I method to determine the points to use. According to Yamamoto, the whole body is reflected around the ear: in front is the cervical spine, in back of the ear (the mastoid) is the lumbar spine, and a line going above the apex represents the thoracic spine. The arm is in front of the thoracic line, and the leg is represented behind the thoracic line.

There are further diagnostic points on the elbow that help determine which part of the spine is to be addressed. If one finds pressure pain at the edge of the bone of the lateral epicondyle, L.I.11 area, this indicates cervical spine involvement. The lumbar spine is diagnosed at the edge of the medial epicondyle (just medial to HT3), and the thoracic spine is diagnosed, about 1 finger below LU5.

If I find pressure pain on the elbow points, I release it with the corresponding Shao Yang area by the ear. I also check if the chosen scalp point also releases the patient's complaint area. If the elbow is cleared and the patient complaint has not fully cleared, I then look for a dent or puffy feeling in an area on the scalp that corresponds to the complaint area on the Somatotop-I map. I needle the scalp point shallowly at a 10 degree angle, with a 0.12x15 needle (Seirin dark green). I believe that most Yamamoto followers use thicker needles and a 45 degree angle, and might also use multiple needles at the same point, something I have not experimented with.

In my experience, the most prominent point that shows on the elbow is the cervical diagnostic point (the edge of the lateral epicondyle, L.I.11 area). S.J.22 tends to clear this as well as affect the patient's pain area, and in some cases clears other abdominal reflexes. Sometimes I have to go above or below S.J.22 to achieve this.

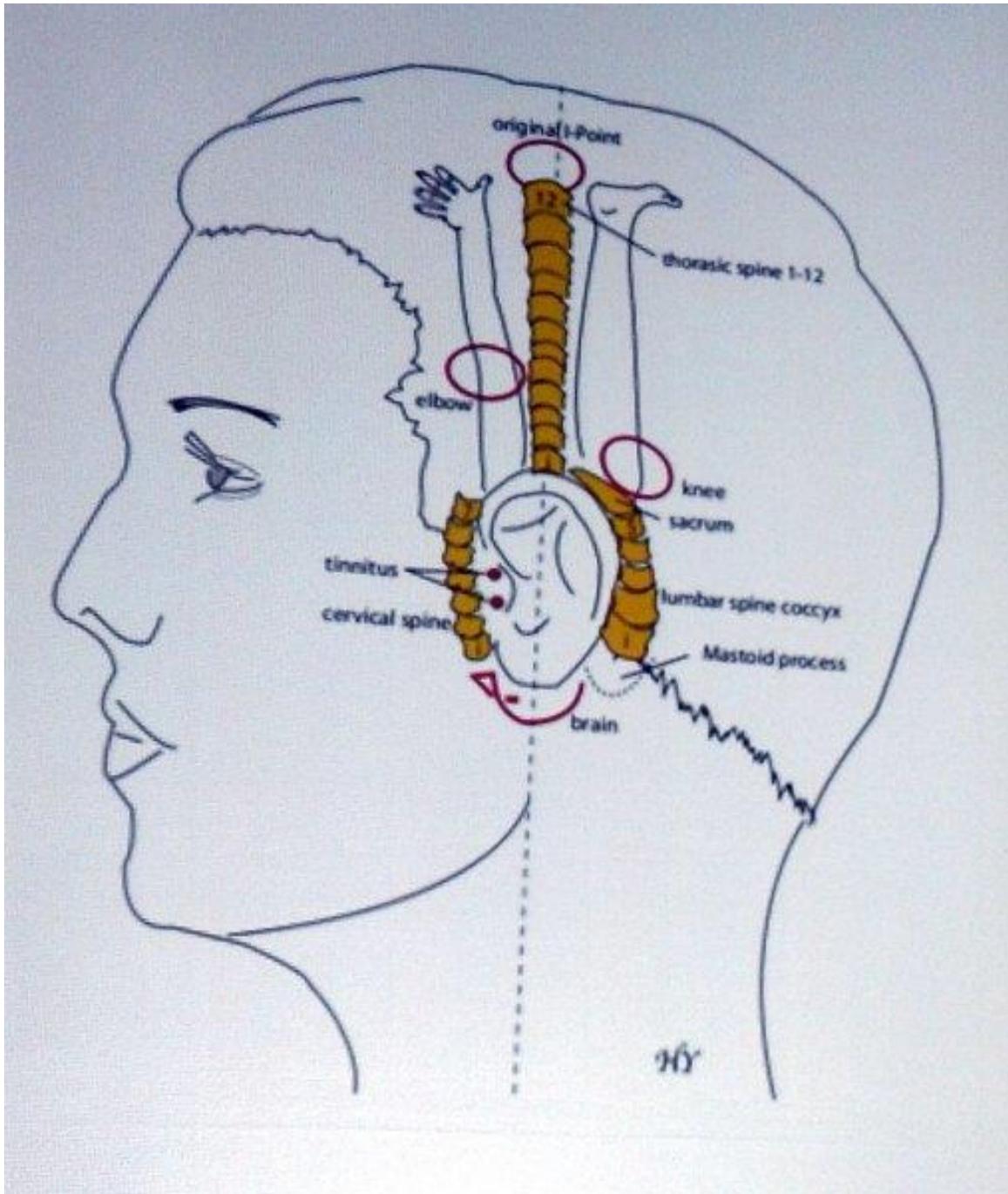
Second most popular finding at the elbow (for me) is the lumbar diagnostic point (at the edge of the medial epicondyle, HT3 area), and since I tend to like S.J.22, I will try that first, and if it does not fully resolve the elbow (and patient's complaint), I will add a point on the mastoid, S.J.18/G.B.11 like which would be the official point to clear the elbow by Yamamoto. Again, I might move further up: I start at the lower edge of the mastoid and move up looking for puffiness (when there are dents in this area, they tend to also be puffy).

Least likely, for me, is pressure pain on the thoracic diagnostic area (below LU5). I tend to find this to be somewhat more common in patients with Liver problems (i.e. they also have pressure pain under the ribs on the right side) or obstructed diaphragm.

Alternatively, I might ignore the elbow all together, and start with S.J.22 to see if it releases the patients' pain area and/or any abdominal findings, and if that does not prove effective, I will go for the lower mastoid area. After looking carefully at those two areas, I might end up using one or both of these on one or both sides.

YNSA style practitioners are better adept at using these points so that they can rely on them exclusively. In my practice, I use these points as part of other strategies, and I test these as well as other points, rather than use just one method. This allows me to address both the brain and nervous system, as well as other underlying physiological imbalances.

In pain cases, it is possible to calm the pain by modulating the brain response to pain, but while the brain is the organ perceiving the pain - and pain always involves the brain - the cause of the pain is not always just in the brain, and can have other factors (e.g. inflammation, contraction, spasms, and strains of muscles, ligaments and organs, etc.). To address only the brain would be to follow the pharmaceutical trend of prescribing mood modulators to pain patients, which has limited success (and in the case of the pharmaceuticals can have unpleasant side effects). By the same token, addressing only the physiological causes will not always free the person from pain. Calming the brain's perception of pain not only allows us to release the hold pain has on the patient, it also gives an opportunity for the other physiological causes to be released more easily, by releasing the "pressure valve" of the pain cycle and allowing the rest of the body the space to readjust the physiology.



Yamamoto's Somatotop I