The Solar Plexus Stimulation Assessment (SPSA)

Tyran Gregory Mincey, D.C., DIBAK

Abstract

The Solar Plexus or Celiac Plexus is a comprehensive network of nerves, it also is intertwined and anterior to several branches of vital blood supply to the gut, reproductive, and systems of elimination. The objective here is to share information about uses of this plexus diagnostically and therapeutically. Combined with muscle testing, this plexus may be used as a window to evaluate the status of enteric nervous system (2nd Brain) functions and in the early detection of digestive dysfunction. With this new understanding of this access point, applied kinesiology examination and procedures can be combined to elucidate the cause of dysfunction or the completeness of treatment.

Key Indexing Terms

Chiropractic, Applied Kinesiology, Solar Plexus, Enteric, Herbs, Manual Muscle Text, MMT, Nutrition, 2nd Brain, Physiological Phenomena, Functional Medicine, Stomach, Large Intestine, Colon, Ileocecal Valve, Solar Plexus Chakra, Xiphoid process, Abdomen, ICV, GERD, Gastroesophageal Reflux Disease

Introduction

The enteric nervous system in 1999 was heralded as the 2nd brain" by Dr. Micheal Gerson. His work exposed the role of the enteric as an independently functioning system and created breakthrough types of thought in management of gut function and its overall symbiotic but several role in areas of health. Even with this breakthrough we are still left with questions; What are good ways to assess function of digestion objectively? Noninvasively? And prior to a disease process taking an irreversible hold? And how can we assess our clinical interventions for effectiveness, and completeness, quickly objectively, and noninvasively?

The enteric nervous system has only a few entry points for an examiner. Up until this point, these entry points consisted of taking a subjective history, and gross and microscopic evaluation of buccal, and anal orifices and excreta thereof, as well as surgical options. In addition, with the advent of applied kinesiology procedures and proper evaluation we have been able to detect several areas in need of early intervention and treatment. This has been done effectively for many years with conditions such as GERD, the iliocecal valve syndrome, hypoacidity, hyperacidity, gall bladder dysfunction, colon dysfunction, dysbiosis, malabsorption syndromes, leaky gut, hiatal hernia, pancreatic imbalances (exocrine), and sometimes areas connected to and outside the enteric such as liver, pancreas, and kidney.

The alimentary canal is the principle target of the enteric nervous system and contains several functional valves; these include Iliocecal, colic, valve of houston, cardiac sphincter, lower esophageal sphincter, and the internal (involuntary) and external anal sphincters (voluntary). And although the neurophysiology is not completely clear, these structures seem to have the ability to communicate with one and other and impact function of one on the other as well as remote areas of the body. The mechanism of this communication and outcomes in many patients seems random and unique!

Anatomic knowledge has dominated clinical practice at a cost of ignoring possible functions of these structures. More commonly clinicians look for anatomic pathology. Considering functional health of the enteric nervous system paramount is going to help bring patients to new heights of health and wellness.

Only those trained to understand that functional, chemical, and structural illness may precede poor function and then lead to pathology actually look for it.

In an anatomic and gross pathology oriented healthcare world, subpar function often takes a backseat to the more glamorous gross pathology and disease; high tech malpractice preventing lab tests are preferred to basic exam procedures and thorough history taking. While these viewpoints and tools are useful in the detection of less frequent pathology, the majority of patients do not statistically suffer from such a maladies and are are left with no answer. Also the ordering of invasive tests are premature many times The solar plexus to is an anatomic structure, not an "area." This is a common misconception among clinicians. It has been overlooked as a tool for the assessment of digestive dysfunction in a gross manner.

Background

The area on the abdomen which represents the solar plexus is talked about in many disciplines; these include yoga - as a major power center which impacts and supports spleen, pancreas, kidneys, and liver, and is heralded as a major power chakra - a source of power to be distributed over various parts of the body. Martial arts practitioners use this area as a target for attack, to disable opponents or foe. The osteopath Fulford regarded the solar plexus as an area which could serve as a source of relief from Past moments of shock. He used it therapeutically as an entry point to stimulate emotional healing.

In acupuncture and meridian therapy, the solar plexus area or chakra is a source of energy for the lung meridian, which descends to meet the large intestine and travels up and through the body past the stomach, crosses the diaphragm ends up at LU1 in the shoulder. Is interesting to note that this meridian is associated with the element " metal," and disorders of the throat, chest, and nose. It is also associated with the seven emotions and self-preservation, as well as protection. This might account for Fulford's explanation of "shock release" or the yogi's belief in the area as a power center which in many when stimulated changed the hormonal tides of the body through lungs, intestines and emotional discharge.

Anatomic knowledge supports the viewpoints and theories put forth by both yogis, the martial artist, Fulford, meridian therapy, and applied kinesiologists. We know anatomically that the solar plexus is a bundle of nerves that surrounds the digestive system and vessels supplying it. When we view the body as a profile or hemisection, the solar plexus looks like the sun and its nerve endings point toward the anterior surface of the abdomen. This appearance is why it has been dubbed "solar" - sun, plexus "bundle of nerves." These nerves intertwine with several vital blood vessels which supply structures relating to digestion and elimination. Among these are the celiac trunk which supplies blood to the stomach, spleen and liver, and the superior mesenteric artery which supplies large intestine, and the renal arteries. Also we must not forget that the solar plexus is a major area for both sympathetic and parasympathic influences. First via the vagus nerve which is parasympathic and is 95% afferent. Sympathetic functions are governed via the celiac plexus. As side note, vagal stimulation has been used as a treatment for depression because 95% of its fiber afferentate the brain.

Nociception is the perception of harmful stimuli which is then encoded and processed in the nervous system, It is this mechanism that supplies the body's ability to sense potential harm, and it is an afferent activity. These fibers may be stimulated by chemical, mechanical, emotional or thermal stimuli. Nociception in the enteric may be manifest as indigestion, heart pain, back pain, thoracic pain, nausea, and ICV dysfunction. It may be caused by food, environmental, chemical, or nutrition deficiency, hormonal imbalance, structural imbalance - like subluxation, hiatal hernia, reactive muscles, and stress to temperatures exposures both hot and cold.

Antenna effect in meridians was documented by Walther. There seems to be a sort of antenna effect at the solar plexus but only when dysfunction is present. This is also the area of CV14. This effect perishes when normal function is restored. This effect may also be more a thermal stimulation as it is distance dependent.

Stretch. The basis for GI function is stretch- expansion by content. Fiber is essential to this internally. This is one method of feedback that determines fullness. External stretch may play a role in improving digestion and can be accomplished via visceral manipulation.

Simplicity - the hallmark of a truth is simplicity. When explanations become very intricate and obscure we need to consider that we may be getting away from truth, while Brobdingnagian in volume the subject of anatomic structures is actually simple to learn and know over time as it represents the truth of what structurally is the human body.

Assessment. After history and examination one can add the simple procedure of rubbing over the solar plexus. Rubbing will cause nociceptive input and weaken any primary indicator muscle. But only if digestive function has gone astray. This can be used as a method too gauge effectiveness of treatment rendered, if more areas need to be addressed, or if interventions are working. When normal function is restored rubbing will no longer weaken a PIM.

Although more mysterious, there appears to be an antennae effect where simply waiving the hand over the solar plexus may create a weakening effect in some individuals. Descriptions in yoga, and acupuncture may partially explain the phenomenon but clearly do not explain the mechanics of such a phenomenon. This needs to be investigated to discover the less important "why" this happens.

SPSA Protocol

Using a case which is not switched in the clear do the following;

- 1. After taking an appropriate history and physical exam and ruling out obvious pathologies.
- 2. Choose any primary indicator muscle which is intact. The middle deltoid is usually convenient.
- 3. Rub below the xiphoid process (CV 14).
- 4. Recheck the PIM
- 5. Inhibition may be interpreted as dysfunction somewhere in the digestive tract, most commonly stomach and large intestine.
- 6. Locate, correct and then go back to #3 above until the test is negative.

Discussion

The enteric nervous system is a somewhat complicated system in terms of function. However, it has been observed over a span of many years that this function has a profound impact on human and other vertebrate mammals overall health and vitality. The fact that action or activity at the beginning of the alimentary canal controls outcomes at the end based on documented reflexes gives us the tools we can use to assess our clinical outcomes inexpensively. The presence of this new evaluation point at the solar plexus gives us yet another tool that we can employ that will allow us to assess our clinical outcomes. This technique allows us to objectively and expediently assess interventions in the area of parotid, stomach, small intestine, large intestine and other outlying entities such as the liver, pancreas, gallbladder, and those that have a direct impact on activity in the canal and upon the enteric nervous system.

This test should be used concurrently with appropriate history, physical exam and imaging modalities and procedures. The result is enhanced diagnostic accuracy and improved outcomes.

Conclusion

The solar plexus has a long history and several philosophies attached to its presence. It is clear that the interest in this was sparked by simple observations of human function. Early expressions of the purpose and function of the solar plexus were visionary and amazingly accurate when compared to what we know about the anatomy of the human body. Based on what we know about physiology of the human body it seems that over time all disciplines that have treated, analyzed, and studied the solar plexus in health and even spiritual practices have made positive

contributions. The combination of knowledge from multiple disciplines adds yet another piece to the puzzle of digestive health. Health in this area is likely to be one of the most important areas to master for the long-term benefit of mankind; it is also clear that health in the area of the second brain is effected by spiritual/emotional states, nutrition status, structural status, environmental factors, and the status of the endocrine system. The combinations of these six factors lead us to many presentations - in fact if we were to keep it a really simple and linear, which it is not, and include a single person and pretend only the enteric nervous system function was involved without accounting for other complicated factors, such as genetic individuality, hormonal status, etc, the person could present to our office with at least 720 different enteric health related issues.

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