New Abdominal Acupuncture
A Description with Clinical Examples

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Abstract

A number of well known acupuncture microsystems are used in contemporary clinical practice including the auricular acupuncture system of Nogier, the scalp acupuncture system of Yamamoto, and the hand acupuncture system of Yoo. These microsystems are based on the discovery of a somatotopic relationship of a particular body area to functional areas of the cerebral cortex. Zhiyun Bo introduced an abdominal acupuncture microsystem in 1991 and published the first text on this microsystem in 1999.

Accurate localization of acupuncture points on any of these microsystems in clinical practice can be difficult. A novel technique to rapidly, accurately localize microsystem acupoints via stimulation of those points with low level laser energy is described herein. This technique can be used with any acupuncture microsystem, and when applied to the abdominal acupuncture microsystem is termed the New Abdominal Acupuncture (NAAP). NAAP produces rapid clinical improvements with durable results, and clinical examples of this technique are presented.

key words: acupuncture, methods, microsystems, laser
Introduction

Many different acupuncture microsystems have been described since Nogier first described an auricular acupuncture system in the 1950’s.\(^1\) Since that time, many other acupuncture microsystems have been described including scalp, face, eye, nose, philtrum, mouth, tongue, neck, spine, chest, abdomen, hand, foot, and wrist/ankle microsystems.\(^2\)

These microsystems are all based on the discovery of a somatotopic relationship of a particular body area to functional areas of the cerebral cortex. Some of these microsystems have complete somatotopic representations of the human body described while others have incomplete representations. Microsystems having complete somatotopic representations of the body allow almost any health condition to be treated, with examples that include auricular acupuncture developed by Nogier\(^1\), scalp acupuncture introduced by Yamamoto\(^3\), hand acupuncture developed by Yoo\(^4\), and abdominal acupuncture introduced by Bo\(^5\) (see Figure 1). Each of these microsystems uses a different method to localize the specific acupuncture treatment areas on their body parts (e.g. ear, scalp, or hand). Health conditions are treated by stimulating specific points on a given microsystem homunculus using acupuncture needles, moxibustion, manual pressure, local anaesthetic injections, or low level laser energy.\(^6\)

Zhiyun Bo introduced an abdominal microsystem in 1991, with his first text fully describing this microsystem and its clinical use published in 1999.\(^5\) This abdominal microsystem is classically represented in the form of a turtle (Figure 1). Important points to position this homunculus on the abdomen are CV-13 (Shangwan) which corresponds with GV-20 (Bai Hui), while CV-2 (Qugu) forms its caudal end.
It is not surprising that Bo discovered an acupuncture microsystem in the abdominal region, which has great importance in Traditional Chinese Medicine. The Nan Jing states: “The hara (abdomen) is the origin of the energetic anatomy and within the origin of the meridians”.\(^7\)

A major difficulty encountered when treating patients using any of these microsystems is how to accurately locate the acupoints on the body part. Optimal therapeutic outcomes occur if the acupoints can be precisely located. In traditional body acupuncture, the positions of acupoints are defined by distances from anatomic landmarks. Oftentimes in microsystems, however, there are no anatomic landmarks to rely on to precisely locate acupoints on their homunculi.

Localizing acupoint SI-7 (Zhizheng) illustrates the challenge of determining precise point locations. Classically, this point is located 5 cun proximal to SI-5 (Yanggu) on a line between that point and SI-8 (Xiaohai). SI-5 (Yanggu) can be located precisely using anatomical landmarks. Measuring 5 cun from this site to accurately locate SI-7 is more challenging since the cun distance is a unique measure for each individual, defined as the width of the interphalangeal joint of the thumb. A practitioner can use a measuring tape or “cun”-meter to localize acupoints found between anatomic landmarks, though more frequently practitioners use their experience and sensitivity instead to locate those points.

Accurate point localization in acupuncture microsystems where clear anatomic landmarks are lacking is even more challenging. For example, the abdominal acupuncture homunculus (Figure 1) is spread over the large, relatively flat, and anatomically featureless abdomen which makes orienting the abdominal homunculus and its points
difficult. Bo uses a tape measure to precisely localize the acupuncture points on the abdominal microsystem homunculus, but this is a time-consuming procedure.

To overcome the challenges in precise localization of acupoints on the abdominal acupuncture microsystem homunculus, the author has developed a rapid, accurate point localization method using radial pulse variability to laser stimulation of the abdominal points. This technique is termed Frequency Associated Acupuncture point Localization (FAAL).

**FAAL (Frequency Associated Acupoint Localization) Technique**

The FAAL technique has its roots in auricular acupuncture, which was discovered by Nogier. In this acupuncture microsystem, the acupoints originally were localized using a device measuring skin resistance (point selector). Subsequently, Nogier discovered a phenomenon called RAC (reflexe auriculo cardiaque). With cumulative clinical experience, Nogier discovered that as he reached the auricular acupoint he intended to treat, the patient’s pulse characteristics would transiently change. Point localization in auricular acupuncture subsequently incorporated the RAC phenomenon, and this technique continues to be in widespread clinical use.

Similarly, in the FAAL technique, assessment of variability in the patient’s pulse is of fundamental importance to determine accurate point localization. The pulse response to point stimulation with low level laser therapy is used to rapidly and accurately locate abdominal microsystem acupoints. This technique is adapted from the work of Omura, which describes how low level laser stimulation of traditional acupoints alters the autonomic nervous system (“resonance”) differently at each point.
Each individual acupoint when stimulated with low level laser energy uniquely alters the patient’s pulse, comparable to an individual fingerprint. For example, a clinician would follow these steps in using the FAAL method (personal observation of author) for treating elbow epicondylitis:

1. With his/her left hand, the doctor takes the pulse of the patient (using the three fingers according to Chinese pulse diagnosis).

2. With his/her right hand, a low level laser beam is applied to the elbow area. The patient’s radial pulse will change immediately when the laser energy stimulates the tender area, which reflects this patient’s unique elbow-pain-pattern (Figure 2).

3. The low level laser is applied to the patient’s abdomen over the elbow area of the abdominal acupuncture homunculus (Figure 3). When the acupuncturist feels a similar change of the patient’s pulse, this indicates that the elbow point is precisely located and is marked.

4. This abdominal acupuncture point is then treated by needle, injection, or low level laser.

**New Abdominal Acupuncture (NAAP)**

The incorporation of FAAL to rapidly and accurately locate acupoints on the abdominal microsystem homunculus discovered by Bo⁵ produces a new acupuncture methodology that produces rapid clinical improvements even in chronic conditions that are refractory to other treatment approaches. This methodology is called the New Abdominal Acupuncture (NAAP) system.
A further refinement of the abdominal acupuncture system to facilitate its clinical use involves use of a laser hologram to project the homunculus on the abdomen (Figure 3). This permits acupuncture practitioners to easily orient the large homunculus on the abdomen for treatment purposes.

As previously described, the Nan Jing (400-200 BC) emphasizes the importance of the abdomen as being the source of the vital energies and the root origin of the 12 meridians. In the West over a hundred years ago, osteopaths described mutually reciprocal influences of brain and abdomen and the concept of the “abdominal brain”. Anatomically, an estimated 100 million neurons are located in the abdominal viscera. Approximately 90% of the vagus nerve is comprised of afferent sensory fibers that relay information to the paleocortical and limbic system structures which in turn regulate autonomic nervous system balance and endogenous cortisol release. Thus, there is a plausible neuroanatomic basis for the observed clinical efficacy of the abdominal acupuncture microsystem. A new discipline termed neurogastroimmunology has evolved that studies the interactions between the central nervous system (CNS) and the enteric nervous system (ENS).

**Clinical Applications of NAAP**

NAAP can be used to treat many clinical conditions. A partial list of conditions that respond well to this technique includes headaches, sinusitis, hay fever, asthma, non-cardiac chest pain, neuralgia, neuropathic pain, and orthopaedic syndromes. Crohn’s disease, colitis, and gynaecological disorders may also be successfully treated with NAAP.
Non-cardiac chest pain (no clinical or laboratory evidence of cardiac disease) responds extremely well to NAAP (personal experience of author). This condition is interpreted in Traditional Chinese Medicine as resulting from an “emotional heart”\textsuperscript{11,12}. Remarkably, a single well chosen acupoint sometimes may cure a patient with non-cardiac chest pain who has worried for years that they have cardiac pathology.

Beyond non-cardiac chest pain, there has not been sufficient clinical experience using NAAP to treat psychosomatic or psychiatric disorders to comment on its utility for those conditions. Those conditions are promising ones for treatment using this approach, though.

**Clinical Examples**

Three case studies will be presented to illustrate the NAAP system in clinical use. Actual acupoint treatment can be with low level laser energy, acupuncture needles, injections (e.g. procaine, homeopathic drugs), or press-tack needles. Press-tack needles are small (1 mm) acupuncture needles that just penetrate the skin over the acupoint but can be left in place with an adhesive bandage for a period of days.

**Case 1 Asthma**

The acupuncture points which were treated by press-tacks are marked on the skin in Figure 4. The points were the corresponding points for GV-23 (Shangxing), LU-2 (Yunmen), KI-27 (Shufu), CV-17 (Danzhong), and ST-12 (Quepen, marked with “12” in Figure 4). These points can successfully treat asthma, and even an acute asthma attack can respond within seconds.
Case 2 Asthma and allergic sinusitis

Figure 5 demonstrates treatment of asthma and allergic sinusitis in an infant with low level laser, which remarkably produced symptom resolution lasting several days using only 3 laser diodes for 3 minutes. Additional traditional acupuncture points were treated to strengthen the spleen via ST-36 (Zusanli) and harmonize the liver via LR-3 (Taichong).

Case 3 Musculoskeletal pain treatment using laser homunculus

The abdominal acupuncture homunculus is projected on the abdomen using green laser in Figure 6. Treatment of pain of the shoulders, low back, and left hip using the Laserneedle multichannel low level laser device is demonstrated.

Discussion

The abdominal acupuncture system introduced by Bo offers a microsystem that has a complete somatotopic representation and thus can be used to treat almost any health condition. This microsystem, as originally described, requires a time-consuming measuring process to localize acupoints on its abdominal somatotope, making it relatively difficult to use in clinical practice. Abdominal acupuncture treatments, though, produce rapid clinical improvements with durable results.

Nogier’s introduction of the Reflex Auriculo Cardiaque (RAC) technique to localize points on the ear somatotope greatly simplified the use of ear acupuncture in clinical practice. This technique uses physiologic response (change in radial pulse characteristics) to stimulation of anatomic sites on the ear to rapidly and accurately localize the appropriate acupoints to be treated. This allows more precise localization of acupoints on the ear homunculus than by measurement or anatomic estimation.
FAAL (frequency associated acupoint localization) is an adaptation of the RAC phenomenon that can theoretically be used to localize acupoints on any of the various acupuncture microsystems (including auricular acupuncture). Low level red laser stimulation of the clinically involved body area causes a transient alteration in the patient’s radial pulse characteristics that can be palpated by the acupuncturist. The corresponding point on the microsystem homunculus will produce an identical alteration in the patient’s radial pulse when the laser energy stimulates it. This non-invasive technique allows rapid localization of acupoints on the microsystem homunculus for acupuncture treatment. Thus, the FAAL technique can both simplify and enhance the integration of (and results using) acupuncture microsystems in clinical practice.

A theoretical concern of the use of the abdominal acupuncture system might be the presence of abdominal incision scars crossing the somatotope. This issue has not been formally investigated; but since the red laser energy can be used to treat painful scars and their sequelae, even scars traversing the abdominal somatotope should not prevent its successful use in clinical practice.

Conclusions

A novel abdominal acupuncture microsystem treatment method (New Abdominal Acupuncture, or NAAP) incorporates frequency associated acupoint localization to rapidly, accurately locate points on the abdominal acupuncture microsystem homunculus developed by Bo. NAAP can produce rapid, lasting clinical improvements in a variety of inflammatory, allergic, visceral, and pain conditions (analogous to the results achieved using TCM or other acupuncture microsystems). These abdominal microsystem acupoints
can be treated with acupuncture needles, injections, or low level laser therapy. Further study of the New Abdominal Acupuncture system to further elucidate its indications and mechanisms is warranted.

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