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Classification of Autonomous Nervous Functions to Replace the Meridian System for Acupuncture/Moxibustion/Massage

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Abstract

Introduction: It is revealed by biomedical studies that the autonomous nervous system mediates most clinical effects of acupuncture/moxibustion/massage. Whereas, it is advantageous for the classical meridian system to instruct acupuncture/moxibustion/massage by classifying the various acupoints into related meridians. Purpose: It was aimed to replace the meridian system with the classification of autonomous nervous functions for acupuncture/moxibustion/massage. Methods: It was searched the relevant papers on autonomous nervous system and acupuncture/moxibustion/massage, then classified and summarized. Results and Discussions: It is classified the autonomous nervous functions into: (a) Adjacent/feedback modulation, like local chronic pain, itch, inflammation, acupuncture, and so on; (b) Remote multi-point sensing coordination, including autonomous coordination to visual or acoustic attention, arousal, sleep, insomnia, yawn, remote analgesia/hiccup acupuncture, etc; (c) Dynamic coordination, either contraction or stretch, including cardiovascular coordination for arm/hand movement, and leg movement to change the intestine/urinary-bladder; (d) Thoracic-abdominal-back coordination, including the sympathetic/parasympathetic regulation therein, with addition of enteric nervous system, cardiorenal interactions, gut blood-pressure interactions, etc; (e) Emotional coordination onto sympathetic/parasympathetic system and related psychiatric diseases; (f) Environmental coordination, including temperature regulation, day/night circadian coordination, and so on. Consistently, with clinical effects and biomedical supports for acupuncture/moxibustion/massage, it is corresponded the respective acupuncture/moxibustion/massage of acupoints to the classification of autonomous nervous functions, while listed the common acupoints of clear clinical effects for demonstration. Conclusions: It recommends to use the classification of autonomous nervous functions to replace the meridian system in acupuncture/moxibustion/massage jointly for both diagnosis and treatment.

Keywords: Pain; acupuncture; Autonomic nervous system; Attention; Muscle; Emotion.

1. Introduction

1.1. The Classical Meridian System in Chinese Medicine

The classical meridian system is advantageous to instruct the practice of acupuncture, moxibustion and massage because it classifies the various acupoints into 14 linear chains on the body of humans as the 12 main meridians plus Ren and Du channels, with each linear chain of main meridian, Ren or Du channel connecting a group of acupoints of related clinical effects for diagnosis and treatment(Yang & Qian, 2020).

The classical locations of 361 acupoints on the 12 main meridians plus Ren and Du channels on the body of humans have been reviewed by Chapple(2013) in an open access paper, convenient to the researchers and physicians using English.

Recent investigations have revealed the local detailed anatomy of many important acupoints. Lou and Jiang(2012) summarized the anatomical constituents of acupoints as: (a) The acupoint kernel formed by neurovascular bundles or tissue containing abundant nerves and blood vessels; (b) The acupoint shell formed by cleft or tunnel of bones, muscles or fascia. Accordingly, they classified the acupoints into three types as cleft, tunnel, and terminal, with the terminal type exposing the neurovascular bundles or nerves.

In Chinese medicine, from classification of 12 meridians, it was derived the classification of diseases, especially the 6 channel system dividing the diseases according to such manifestations of symptoms as fever, cold, sweat, thirsty, vomit, cough, urine, constipation, vascular pulsation, tongue coating, and so on(Wang et al., 2018a). Joint use of 6 channel system and classical meridian system is adopted in Chinese medicine, with the 6 channel system for diagnosis while classical meridian system for both diagnosis and treatment.

1.2. The Recent Scientific Progressions in Acupuncture

Whereas, the 12 main linear meridians, classifying and connecting related acupoints, were created by ancient Chinese out of their philosophical compliance of number to external world such as month(Yang & Qian, 2020), and was subjective and not scientific.

Scientifically, many years of biomedical studies have revealed that the various clinical effects of acupuncture/moxibustion/massage result from autonomous nervous regulation(Li et al., 2013,2022d,2024b). Accumulated evidences have demonstrated that acupuncture regulates various autonomic nervous functions including blood pressure, heart functions, pupil size, muscle sympathetic nerve activities, temperature, and so on(Li et al., 2013,2022d,2024b). Acupuncture, moxibustion or massage on acupoints activates the corresponding nerves, spinal cord, and brain(Li et al., 2022d), while regulates the autonomous nervous system for anti-inflammation, cardiovascular and gastrointestinal functions, and so on(Li et al., 2024b).

Yuanhao Du(2018) classified the theoretical systems for acupuncture and moxibustion into traditional system(classical meridian system, classical non-meridian system and classical TCM system), and modern system (nervous or linear contact system and non-nervous or nonlinear contact system).

However, the modern theoretical system cannot instruct the practice of acupuncture, moxibustion and massage as conveniently as the classical meridian system classifying the related acupoints into 12 linear meridians plus linear Ren and Du channels(Yang & Qian, 2020). To overcome the unscientific nature of classical meridian system, in this article it is attempted to classify the autonomous nervous functions to replace the classical meridian system, while demonstrate with lists of common acupoints for use of such classification for acupuncture, moxibustion and massage.

2. Methods

In this article, it was adopted the method of reviewing all relevant fields of studies for integration and classification. Papers were searched out from Pubmed, CNKI and WanFang. The updated relevant reviews in subfields were given priority to cite. If not available, relevant reviews were cited. If still unavailable, the salient and repeated experimental results of original articles in subfields were cited.

The words and phrases utilized in the search of papers were as the followings: (a) acupuncture, (b) sympathetic, (c) parasympathetic, (d) enteric neural, (e) pain, (f) inflammation, (g) the names of various acupoints, and so on. It was attempted to search all acupoints on 12 main meridians plus Ren and Du channels, even though some of them did not show suitable clinical paper.

3. Results

3.1. Overview of Autonomous Nervous System

The autonomous nervous system, composed of the sympathetic, parasympathetic and enteric nervous system(Benarroch, 2020; Gibbons, 2019), is diffuse and has widespread innervation to nearly every organ(Benarroch, 2020; Gibbons, 2019). The sympathetic outputs are critical for maintenance of blood pressure, thermoregulation, and response to stress. The parasympathetic reflexes control lacrimation, salivation, pupil response, heart rate, gastrointestinal motility, micturition, and erectile function(Benarroch, 2020). The enteric system regulates the intestinal digestion and homeostasis(Sharkey & Mawe, 2023).

Some peripheral sensations are mediated by the autonomous nervous system. Pain is accompanied by intensive sympathetic activation(Cai, 2019; Gibbs et al., 2008), while itch is regulated by parasympathetic activities(Kim & Yosipovitch, 2013).

The central control onto autonomous nervous system manifests as the physiological effects of various emotions, such as fear and anxiety(Shekhar et al., 2003; Soya & Sakurai, 2020), or parasympathetic activation by pleasure(Bernardi et al., 2017). Besides, the hypothalamic suprachiasmatic nucleus regulates the circadian change of sympathetic/parasympathetic balance(Nakagawa & Okumura, 2010; Okamura, 2007).

Due to the diffuse and complex nature of autonomous nervous system, it is necessary to classify the autonomous nervous functions for clear elucidation and demonstration.

3.2. Adjacent/Feedback Modulation

3.2.1. The Adjacent/Feedback Sensory/Vascular Modulation

Peripheral pain and itch are mediated by the autonomous nervous system, with pain related to sympathetic activation(Cai, 2019; Gibbs et al., 2008) as evidenced by local chronic pain(Gibbs et al., 2008), and itch to parasympathetic activities(Kim & Yosipovitch, 2013).

There is local adjacent/feedback autonomous modulation onto pain. Sympathetic activation potentiates adjacent pain or chronic pain(Cai, 2019; Gibbs et al., 2008). Similarly, acupuncture is utilized to exert autonomous modulation onto local inflammation, mainly via local adjacent vasodilation(Dou et al., 2021; Joung et al., 2024) and release of adenosine(Joung et al., 2024).

Obviously, autonomous nervous system exerts adjacent/feedback sensory/vascular modulation onto pain and inflammation.

3.2.2. The Adjacent/Feedback Modulation in Acupuncture/Moxibustion/Massage

For the adjacent/feedback manifestations, acupoint sensitization results from sympathetic-sensory coupling of pain(Cui et al., 2023), while acupuncture modulates the autonomous nervous functions in local inflammation, usually via vasodilation(Dou et al., 2021; Joung et al., 2024) or release of adenosine(Joung et al., 2024).

Many effects of acupuncture/moxibustion/massage manifest therapeutic to local chronic pain or inflammation in vicinity. It has been reviewed that the acupoint Fengchi(GB20) at caudal neck can be adopted to treat cervical spondylopathy(Li & Wan, 2022), while Dubi(ST35) at frontal knee to treat knee osteoarthritis(Pan & Zhao, 2017).

From adjacent/feedback modulation, it is easy to predict the plausible adjacent/feedback effects of acupuncture/moxibustion/massage on acupoints against chronic pain or inflammation in vicinity, and then to look up relevant clinical literature for treatment. It is convenient to use this principle of adjacent/feedback modulation in acupuncture/moxibustion/massage, unnecessary to make a table for demonstration.

3.3. Remote Multi-Point Sensing Coordination

3.3.1. Remote Multi-Point Sensing Coordination for Attention or Sensation

The autonomous nervous system is diffuse, and can coordinate the remote multi-point attentional cooperation of sensations. The focus of this coordination lies in the bodily autonomous coordination to visual or acoustic attention, arousal, sleep, yawn, remote analgesia, hiccup treatment, and so on.

For eye, attention to emotional, cognitive or arousal inputs may result in pupillary constriction or dilation, so that pupil size is the indicator of pupillary coordination to internal autonomous state(Ferencová et al., 2021; Kuraoka & Nakamura, 2022).

For ear, attention to acoustic inputs may change the autonomous nervous functions in skin conductance, heart rate variability and so on(Mackersie & Kearney, 2017; Tietz et al., 2017). The amygdala and auditory cortex mediate the acoustic influences(Zhang et al., 2016; Zhang & Siegle, 2023).

For the spatial coordination of attention for eye and ear, sustained attention of eye is usually oriented in spatially frontal direction, while reactive attention may be attracted to other directions. The ear is an important sensing detector to the lateral or caudal blind field of eye. It was demonstrated that, in deafness, compensatory changes occurred within the visual system enhancing the attentional processing of the peripheral or lateral visual field(Chen et al., 2006; Proksch & Bavelier, 2002). Accordingly, the ear would supplement the lateral or caudal attention to the eye, while the eye movement along with head be required for attention to peripheral, lateral or caudal visual field.

For arousal, the sympathetic system manifests more active in waking than in sleep, while insomnia, difficult to fall asleep, is characterized by sympathetic overactivation and parasympathetic reduction(Fink et al., 2018). Pain usually results in sympathetic activation(Cai, 2019; Gibbs et al., 2008), and causes arousal.

For sleep, with eye and ear unresponsive to outside input, autonomic dysfunction may cause some sleep disorders(Fink et al., 2018; Miglis, 2016), including insomnia. Yawning, occurring when sleepy, is induced by warm head and is hypothesized to functionally cool the head(Gallup & Eldakar, 2013), while the expiratory phase of yawning may facilitate facial neurovascular regulation(Cai, 2018).

For remote analgesic effects, acupuncture/moxibustion/massage has often been adopted, which is actually the remote sensing coordination between acupuncture/moxibustion/massage and its remote analgesic location against pain. For instance, it was reported that acupuncture at acupoint Qunlun(BL60) on foot produced remote analgesic effect for labor(Chu, 2010).

Likewise, for acupuncture to treat hiccup, some acupoints for sympathetic activation or arousal are often adopted, such as Suliao(DU25) on nose(Fan et al., 2022).

In summary, remote multi-point sensing coordination of autonomous system includes the bodily sympathetic/parasympathetic coordination to visual or acoustic spatial attention, the autonomous regulation for arousal, sleep, insomnia, yawn, the remote effects of acupuncture for analgesia/hiccup, and so on.

3.3.2. Remote Multi-Point Sensing Coordination in Acupuncture/Moxibustion/Massage

3.3.2.1. Eye and ear

Besides the frontal sustained attention of eye, the eye movement along with head is required for reactive attention to peripheral, lateral or caudal visual field(Chen et al., 2006; Proksch & Bavelier, 2002), while the ear is sensitive to the lateral or caudal blind field of eye(Chen et al., 2006; Proksch & Bavelier, 2002). Accordingly, the visual attention would be more associative with autonomous change of acupoints on frontal or lateral limbs and related muscular/vascular acupoints of dynamic head/neck, while the acoustic attention more associative with autonomous change of acupoints on lateral or caudal limbs and related muscular/vascular acupoints of dynamic head/neck.

Indeed, it has been demonstrated that acupuncture at acupoint Binao(LI14) on lateral arm(Xie et al., 2017), Lidui(ST45) on frontal foot toe(Liu et al., 2022a) or Fengchi(GB20) at caudal neck(Li & Wan, 2022) can treat various ophthalmic diseases, while acupuncture at Zhongzhu(SJ3) on back of hand(Song et al., 2022), Fengshi(GB31) on the lateral leg(Lin et al., 2023b), or Tianyou(SJ16 or TE16) at caudal neck(He et al., 2023) can treat various otologic diseases. Herein, it is collected and listed the important acupoints with contemporary clinical effects on eye or ear diseases in Table 1.

3.3.2.2. Arousal, sleep, insomnia, and amelioration of remote pain/hiccup

For arousal, sympathetic system is more active in waking than in sleep(Fink et al., 2018). In consistence, stimuli to some acupoints may cause sympathetic activation and arousal, such as the acupoint Suliao(GV25 or DU25) on nose to treat coma and elevate blood pressure via sympathetic activation(Fan et al., 2022).

For sleep induction, insomnia is characterized by sympathetic overactivation and parasympathetic reduction(Fink et al., 2018), while yawning is facilitated by warm head(Gallup & Eldakar, 2013) with latter expiration by lung(Cai, 2018). For acupuncture/moxibustion/massage, insomnia can be treated by electroacupuncture at acupoint Shenmen(HT7) on wrist and Sanyinjiao(SP6) on lower leg to reduce sympathetic adrenal medullary system(Cheng et al., 2015), or moxibustion to increase temperature at acupoint Baihui(GV20 or DU20) on skull(Li et al., 2023b), or acupuncture at acupoint Dabao(SP21) in the lateral skin surface of lung(Lin et al., 2022).

For amelioration of remote pain by acupuncture/moxibustion/massage, there are many practices, such as acupuncture at acupoint Qunlun(BL60) on foot to ameliorate pain for reproductive labor(Chu, 2010).

For treatment of hiccup by acupuncture/moxibustion/massage, the acupoint of Suliao(DU25) on nose, commonly utilized for sympathetic activation or arousal, is often adopted for treatment(Fan et al., 2022).

In Table 2, it is collected and listed the important acupoints with contemporary clinical effects for arousal, sleep, insomnia and amelioration of remote pain/hiccup. Remote multi-point sensing coordination is an important category of autonomous nervous functions for acupuncture/moxibustion/massage.

3.4. Dynamic Coordination

3.4.1. Autonomous Dynamic Coordination to Hand and Leg

The autonomous nervous system must be adjusted to coordinate with dynamic muscular movement, including contraction and stretch. For cardiovascular system, some authors have reviewed the sympathetic and parasympathetic changes in mediating the specific cardiovascular and hemodynamic responses to exercise(Fisher et al., 2015; Wan et al., 2023).

Besides, the movement of leg may mechanically change the shape of intestine and urinary bladder. It has been demonstrated that leg walking is effective to ameliorate constipation(Gao et al., 2019), while beneficial to reduce the risk of lower urinary tract symptoms(Nygaard & Shaw, 2016; Orsini et al., 2006).

Obviously it is one category of autonomous nervous functions to coordinate with the dynamic muscular movement of arm/hand and leg, either contraction or stretch.

3.4.2. Autonomous Dynamic Coordination in Acupuncture/Moxibustion/Massage

The 12 meridians on arm/hand and leg/foot all follow the longitudinal direction, consistent with their dynamic muscular direction. The autonomous nervous system in acupuncture/moxibustion/massage coordinates the 12 meridians of limbs with either contraction or stretch for dynamic movement of arm/hand and leg.

Indeed, acupuncture on arm/hand, at both acupoint Neiguan(PC6) and Jianshi(PC5), was reported to regulate the cardiac autonomic disorders in anxiety patients(Deng et al., 2014), which should result from dynamic coordination because pain in arm would accelerate heart rate. Whereas, acupuncture on leg or foot was reported to treat intestinal or urological/reproductive diseases, such as acupuncture at acupoint Zusanli(ST36) to treat gastrular or gut diseases(Li et al., 2022a), acupuncture at Jiaoxin(KI8) to treat urological diseases(Wu, 2024), and moxibustional acupuncture at Heyang(BL55) to treat reproductive disease dysmenorrhea(Han, 2016).

In Table 3, it is collected and listed the important acupoints with contemporary clinical effects from dynamic coordination. Dynamic coordination is an important category of autonomous functions for acupuncture/moxibustion/massage.

3.5. Thoracic-Abdominal-Back Coordination

3.5.1. The Complex Thoracic-Abdominal-Back Segment

The thoracic-abdominal segments is special for autonomous nervous regulation. The sympathetic/parasympathetic system therein exerts the cardiovascular, respiratory, digestive, excretive, urological and reproductive coordination, either as adjacent/feedback or remote multi-point sensing. Furthermore, there exists a third enteric nervous system(Gibbons, 2019; Sharkey & Mawe, 2023), and the complex interactions such as the cardiorenal regulations(Liu, 2019; Salajova et al., 2024), gut blood-pressure regulations(O'Donnell et al., 2023; Yan et al., 2022), and so on.

Both heart and kidneys are crucial in maintaining volume status(Liu, 2019; Salajova et al., 2024), are bidirectionally interconnected, and injury of one could cause malfunction of another, known as the cardiorenal syndrome(Liu, 2019; Salajova et al., 2024).

The gut microbiome may influence the blood pressure(O'Donnell et al., 2023; Yan et al., 2022), with several mechanisms and systems involved, such as the renin-angiotensin-aldosterone system, autonomic nervous system, immune system(O'Donnell et al., 2023; Yan et al., 2022), and so on.

The back side of thoracic-abdominal segments are also innervated by sympathetic/parasympathetic neurons. In Chinese medicine, the acupoints on the thoracic, abdominal and back areas are different and sometimes even complementary in clinical effects(Li & Cheng, 2024).

In summary, it is reasonable to classify the complex thoracic-abdominal-back coordination into one separate category.

3.5.2. Thoracic-Abdominal-Back Coordination in Acupuncture/Moxibustion/Massage

Correspondingly, the acupuncture/moxibustion/massage on thoracic-abdominal-back segments manifests not only the sympathetic/parasympathetic-related cardiovascular/pulmonary, digestive/excretive, urological/reproductive coordination, but also the third enteric nervous functions(Gibbons, 2019; Sharkey & Mawe, 2023), the cardiorenal regulations(Liu, 2019; Salajova et al., 2024), gut blood-pressure regulations(O'Donnell et al., 2023; Yan et al., 2022), and so on.

For enteric nervous system, acupuncture adjusted the enteric nervous system to treat slow transit constipation(Li et al., 2015).

For cardiorenal regulation, the acupoint YinLingQuan(SP9) on lower leg has been reviewed to treat both urological diseases and periarthritis of shoulder(Li et al, 2023a), implicating the cardiorenal coupling of this acupoint.

For gut blood-pressure regulation, for increases in risk of stroke(blood pressure) in constipation patients(Suenghataiphorn et al., 2025), acupuncture is effective to treat post-stroke constipation, implicating the related acupoints for gut blood-pressure regulation, such as Tianshu(ST25) lateral to umbilicus, Zusanli(ST36) and Shangjuxu(ST37) on the frontal lower leg, and so on(Wang et al, 2025).

In Table 4, the important acupoints with contemporary clinical effects by thoracic-abdominal-back coordination are listed.

3.6. Emotional Coordination

3.6.1. Emotional Coordination onto Autonomous Nervous System

Various emotions coordinate the autonomous nervous system. The amygdala regulates the autonomic system associated with a number of emotional responses including conditioned fear and anxiety(Shekhar et al., 2003), while the hypothalamic orexin neurons are activated by fears in defense reaction via coupling to amygdala by noradrenergic neurons in locus coeruleus(Soya & Sakurai, 2020). In contrast, it was reported that the parasympathetic-related heart rate variability increased by pleasure enhancement of dancing(Bernardi et al., 2017).

In summary, emotions coordinate the autonomous nervous system to generate various physiological effects.

3.6.2. Emotional Coordination by Acupuncture/Moxibustion/Massage

The emotional coordination of acupuncture/moxibustion/massage manifests as its effective treatment of emotional unbalance in various psychiatric diseases.

For depression, as compared to conventional pharmacotherapy, acupuncture exhibits significant efficacy as a standalone treatment after weeks of intervention, with fewer side effects and adverse reactions(Tan et al., 2024). Future investigation is oriented to determine the most effective acupoints for treating depression, such as Baihui(GV20 or DU20), Neiguan(PC6)(Sun et al., 2022; Zhao et al, 2018b), and so on.

For anxiety, acupuncture or acupressure on some acupoints can reduce anxiety in patients, such as Yintang(EX-HN3, GV29 or DU29)(Kwon & Lee, 2018). Fewer as compared to acupoints for depression, more clinical trials on anxiety are still in need for future.

For schizophrenia, acupuncture and moxibustion on some acupoints can ameliorate the symptom in patients, such as Baihui(GV20 or DU20), Neiguan(PC6)(Li et al, 2024a; Liang & Gao, 2019), and so on. A portion of schizophrenia manifest malfunction in perception and attention(Cai, 2024), but few clinical trials have been reported on such issue by acupuncture/moxibustion/massage, requiring more investigations.

In Table 4, the important acupoints by emotional coordination with contemporary clinical effects for psychiatric diseases are listed.

3.7. Environmental Coordination

3.7.1 Environmental Coordination of Autonomous Nervous System

Environment influences the whole body, thus affects the autonomous nervous system from the whole body, with the environmental temperature and circadian change as salient.

For environmental temperature, the autonomous nervous system of mammals manages to maintain constant body temperature in response to change of ambient temperature. For cold challenge, the heat generation results from increase in heart rate, shivering in skeletal muscle and mitochondrial oxidation in brown adipose tissue(Madden & Morrison, 2019; Morrison et al., 2008). The thermogenesis-promoting neurons in dorsomedial hypothalamus activate excitatory inputs to spinal sympathetic and somatic motor circuits to drive thermogenesis of muscular shivering(Madden & Morrison, 2019; Morrison et al., 2008; Silva, 2011), while the uncoupling protein-1 in brown adipose tissue uncouples phosphorylation to release the energy of proton-motive force in non-shivering facultative thermogenesis under the synergistic regulation of sympathetic nervous system and thyroid hormone(Madden & Morrison, 2019; Silva, 2011). For hot challenge, sweat secretion is adopted, and is regulated by the sympathetic system(Hu et al., 2018; Madden & Morrison).

For circadian alteration of day and night, the hypothalamic suprachiasmatic nucleus regulates the biological circadian change of sympathetic/parasympathetic balance(Nakagawa & Okumura, 2010; Okamura, 2007).

In summary, environment influences the whole body and the autonomous nervous system. Ambient temperature and circadian alteration are the salient examples.

3.7.2. Environmental Coordination in Acupuncture/Moxibustion/Massage

The environmental coordination of acupoints manifests as acupoint detection of ambient temperature and acupoint treatment of temperature disorder, and as circadian sensitivity of acupoints.

For ambient temperature, the acupoints participate detecting temperature by the neurovascular bundles or abundant nerves in acupoint kernel(Lou & Jiang, 2012).

Besides, the mammals keep constant body temperature by autonomous thermoregulation. Acupoints are adopted to treat autonomous dysfunctions on thermoregulation, such as fever and sweat. For example, it has been demonstrated that fever is treated by acupoint Quchi(LI11) on elbow(Niu et al., 2024) and Dazhui(GV14 or DU14) on caudal lower neck(Liu et al., 2010), while sweat disorders by Yinxi(HT6) on medial plane of forearm(Hu et al., 2022), Shenque(CV8 or RN8) at abdominal umbilicus(Guo & Hao, 2022; Zhou et al., 2023) and Zusanli(ST36) between frontal knee and lower leg(Zhou et al., 2023).

For circadian alteration, the hypothalamic suprachiasmatic nucleus regulates the circadian change of sympathetic/parasympathetic balance(Nakagawa & Okumura, 2010; Okamura, 2007), causing the circadian change of acupoints. It was reported that the acupuncture manifested circadian changes in preventing the formation of experimental gastric ulcer(Cheng, 1992). Few repeated clinical trails have been reported for treating diseases from circadian shift by acupuncture/moxibustion/massage.

In summary, the environmental coordination of acupoints manifests as acupoint detection of ambient temperature and acupoint treatment of temperature disorder, circadian change in sensitivity of acupoints, and so on.

4. Discussion and Classification

4.1. Functional Classification of Autonomous Nervous System

In all, according to all depictions and demonstrations in section “Results”, it is rational to classify the autonomous nervous functions into: (a) Adjacent/feedback modulation; (b) Remote multi-point sensing coordination; (c) Dynamic coordination; (d) Thoracic-abdominal-back coordination; (e) Emotional coordination; (f) Environmental coordination.

4.2. Application of Classification of Autonomous Nervous Functions to Acupuncture/Moxibustion/Massage

In Chinese medicine, from classification of 12 meridians, it was derived the 6 channel system(Wang et al., 2018), while joint use of 12 meridians and 6 channel system is adopted for diagnosing and treating diseases in Chinese medicine.

The scientific classification of autonomous nervous functions herein replaces both 6 channel system and 12 meridian system in Chinese medicine, therefore it is likewise recommended for joint use for both diagnosis and treatment of diseases.

Some diseases, like hypertension, pulmonary diseases, may have multiple causes, and should be considered as complex and complicated in acupuncture/moxibustion/massage, including cardiorenal interactions, gut blood-pressure interactions. Whereas, some acupoints on hand/arm or leg/foot may have both remote multi-point sensing and dynamic functions, also complex and complicated.

There may be some acupoints beyond the 12 main meridians plus Ren and Du channels, which are not covered in this article.

Traditional acupuncture is performed by needles, which may cause danger to patients for some acupoints on head, thorax, abdomen and so on. The new safer electroacupuncture is recommended for use. Moxibustion and massage are safer.

4.3. Auricular Acupuncture

In mid-1950s, Nogier discovered the ear as a diagnostic and therapeutic system, and advocated auricular acupuncture(Dale, 1999), beyond the 12 meridians plus Ren and Du channels. However, the classification of autonomous nervous functions herein can also help understand the clinical effects of auricular acupuncture by adjacent/feedback modulation, remote multi-point sensing coordination, emotional coordination and environmental coordination.

Conclusions

In this article, it is attempted to replace the classical meridian system by classifying the autonomous nervous functions and applying it to acupuncture/moxibustion/massage.

The autonomous nervous functions are classified into: (a) Adjacent/feedback modulation, including pain, itch, local inflammation, acupuncture, and so on; (b) Remote multi-point sensing coordination, including autonomous coordination to visual/acoustic attention, arousal, sleep, yawn, remote amelioration of pain and hiccup, and so on; (c) Dynamic coordination as either contraction or stretch, including cardiovascular coordination to arm/hand actions, leg movement to change the shape of intestine and urinary bladder, and so on; (d) Thoracic-abdominal-back coordination, including the sympathetic/parasympathetic regulation therein, the addition of enteric nervous system, as well as the cardiorenal interactions, gut blood-pressure interactions, and so on; (e) Emotional coordination onto sympathetic/parasympathetic system and related psychiatric diseases; (f) Environmental coordination, including thermoregulation for temperature, day/night circadian adaptation, and so on.

Corresponding to the joint use of 6 channel system and 12 meridians in Chinese medicine, it is recommended to use the classification of autonomous nervous functions in acupuncture/moxibustion/massage jointly for both diagnosis and treatment.

Competing Interests

The author declares no conflict of interest for this work.

Author's Contributions

The sole author responsible for all process of the paper.

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Table-1. Acupoints by remote multi-point sensing coordination to treat eye or ear diseases

Segments	Acupoints	Regional Location	Treat Eye Diseases
Head or Neck	Cuanzhu(BL2)	Medial facial brow	Acupuncture for ophthalmic diseases(Pan & Ma, 2014; Wu et al., 2021; Yin et al., 2024)
	Taiyang(GB1)	Lateral to eye corner	Acupuncture for myopia(Wu et al., 2021; Yin et al., 2024)
	Sibai(ST2)	On face below eye	Acupuncture for myopia(Wu et al., 2021; Yin et al., 2024)
	Fengchi(GB20)	Caudal neck	Acupoint for ophthalmic diseases(Li & Wan, 2022)
	Wangu(GBl2)	Caudal neck	Acupuncture for myopia(Shang, 2008)
	Dazhui(GV14 or DU14)	Caudal lower neck	Acupoint for ophthalmic diseases(Cao, 2019)
Arm or Hand	Binao(LI14)	Upper arm lateral plane	Acupuncture for ophthalmic diseases(Xie et al., 2017)
	Qingling(HT2)	Upper arm medial plane	Massage for presbyopia(Yang & Cheng, 2014)
	Sidu(SJ9 or TE9)	Forearm lateral plane	Acupoint for ophthalmic diseases(Tong et al., 2020)
	Waiguan(SJ5 or TE5)	Forearm lateral plane	Acupoint for ophthalmic diseases(Ng, 2017)
	Hegu(LI4)	Hand back near thumb	Acupoint for eye closure difficult(Xu, 2023)
	Shaoze(SI1)	Small finger back side	Acupoint for hot eye(Ling, 2023)
Leg or Foot	Fenglong(ST40)	Frontal lower leg	Acupuncture for eye pain(Wang & Song, 2001)
	Jiexi(ST41)	Frontal ankle	Acupuncture for senile cataract(Yang, 2022)
	Zhaohai(KI6)	Inner foot side	Acupoint for ophthalmic diseases(Zhang & Mi, 2011)
	Lidui(ST45)	Frontal foot toe	Acupoint for ophthalmic diseases(Jiang et al., 2015)
Segments	Acupoints	Regional Location	Treat Ear Diseases
Head or Neck	Tinggong (SI19)	Rostral to central ear tragus	Acupuncture for otologic diseases(Jiang et al., 2015; Li et al., 2020; Meng et al., 2021)
	Tinghui(GB2)	Rostral to lower ear tragus	Acupuncture for otologic diseases(Li et al., 2020; Meng et al., 2021)
	Yifeng(SJ17 or TE17)	Caudal to earlobe	Acupuncture for otologic diseases(Li et al., 2020; Meng et al., 2021)
	Tianyou(SJ16 or TE16)	Caudal neck	Acupoint for otologic diseases(He et al., 2023)
Arm or Hand	Sidu(SJ9)	Forearm lateral plane	Acupoint for otologic diseases(Tong et al., 2020)
	Zhongzhu(SJ3 or TE3)	Hand back near middle finger	Acupoint for ear tinnitus(Song et al., 2022)
	Yemen(SJ2 or TE2)	Bottom of middle finger back	Acupoint for otologic diseases(Wang et al., 2020)
Leg or Foot	Fengshi(GB31)	Upper leg lateral	Acupoint for otologic diseases(Lin et al., 2023b)
	Taixi(KI3)	Medial ankle	Moxibustion for ear tinnitus(Xu et al., 2024)
	Taichong(LR3)	Foot back	Acupoint for ear tinnitus(Cai, 2017)

Note: For accurate location and anatomy of acupoints, please refer to Chapple, 2013. Besides, Cuanzhu(BL2), Taiyang(GB1) close to eye, and Tinggong(SI19), Tinghui(GB2) close to ear may possibly exert clinical effects on respective eye and ear by adjacent modulation, remote attentional/sensational coordination, or both.

Table-2. Acupoints by remote milti-point sensing coordination to treat diseases on arousal, sleep, insomnia, and to regulate pain and hiccup

Segments	Acupoints	Regional Location	Treat Coma, Stroke, Palsy or Giddiness
Head or Neck	Suliao(GV25 or DU25)	Nose tip	Acupoint for coma(Fan et al., 2022)
	Shuigou(GV26 or DU26)	Middle between nose and mouth	Acupoint for coma or giddiness(Huang et al., 2024; Zhang, 2000)
	Yifeng(SJ17 or TE17)	Caudal to earlobe	Acupuncture for stroke(Wu, 2024)
	Fengchi(GB20)	Caudal neck	Acupuncture for Stroke(Wu, 2024)
	Wangu(GBl2)	Caudal neck	Acupuncture for stroke(Wu, 2024)
	LianQuan(CV23 or RN23)	Frontal upper neck	Acupuncture for stroke(Wu, 2024)
	Tianyou(SJ16	Caudal neck	Acupoint for giddiness(He et al., 2023)

	or TE16)		
Arm or Hand	Quchi(LI11)	Frontal elbow	Acupoint for giddiness(Niu et al., 2024)
	Neiguan(PC6)	On medial midline and 2 inch above finesse	Acupuncture for coma(Huang et al., 2024b)
	Tongli(HT5)	Above caudal finesse	Acupuncture for stroke(Wang et al., 2021)
Thorax or Abdomen	Jinsuo(GV8 or DU8)	Center of Back midline	Acupoint for catgut embedding to treat Palsy(Li & Zheng, 2022)
Leg or Foot	Sanyinjiao(SP6)	Lower part in medial plane of lower leg	Acupuncture for coma(Huang et al., 2024b)
	Jiexi(ST41)	Frontal ankle	Acupoint for stroke(Wang et al., 2023)
Segments	Acupoints	Regional Location	Treat Insomnia
Head or Neck	Baihui(GV20 or DU20)	Top of skull	Moxibustion, warming-needle moxibustion or acupuncture for insomnia(Li et al., 2023b; Yu et al., 2024; Zhang et al., 2024)
	Wangu(GBl2)	Caudal neck	Acupoint for insomnia(Huang & Wang, 2022)
Arm or Hand	Shenmen(HT7)	Posterior wrist end	Warming-needle moxibustion or acupuncture for insomnia(Yu et al., 2024; Zhang et al., 2024)
Thorax or Abdomen	Qimen(LR14)	Frontal skin surface of lung below breast	Acupuncture as pricking hemorrhage for insomnia(Men, 2024)
	Dabao(SP21)	Lateral skin surface of lung	Acupuncture for insomnia(Lin et al., 2022)
	Shendao(GV11 or DU11)	Midline of thoracic back	Warming-needle moxibustion for insomnia(Wang et al., 2016)
Leg or Foot	Fengshi(GB31)	Upper leg lateral	Acupoint for insomnia(Lin et al., 2023b)
	Sanyinjiao(SP6)	Lower part in medial plane of lower leg	Warming-needle moxibustion or acupuncture for insomnia(Huang et al., 2023; Yu et al., 2024; Zhang et al., 2024)
	Zhaohai(KI6)	Medial ankle	Heat-sensitive moxibustion for insomnia(Lian et al., 2024)
	Shenmai(BL62)	Lateral ankle	Heat-sensitive moxibustion for insomnia(Lian et al., 2024)
	Taichong(LR3)	Foot back	Acupoint for insomnia(Cai, 2017)
Segments	Acupoints	Regional Location	Ameliorate Pain in Remote Location
Head or Neck	Suliao(GV25 or DU25)	Nose tip	Acupoint for menalgia and heel pain(Fan et al., 2022)
Arm or Hand	Hegu(LI4)	Hand back near thumb	Massage for pain amelioration in labor(Jiang et al., 2024)
Thorax or Abdomen	Gaohuang(BL43)	Thoracic back	Treatment of gonyalgia with haemospasia(Yu, 2013)
Leg or Foot	Zusanli(ST36)	Connective point between frontal knee and lower leg	Acupoint for pain amelioration(Li, 2022)
	Heyang(BL55)	Connective point between caudal knee and lower leg	Moxibustion for dysmenorrhea(Han, 2016)
	Feiyang(BL58)	Middle part in caudal plane of lower leg	Acupuncture for pain amelioration of lumbar disc herniation(Zhao et al., 2018a)
	Sanyinjiao(SP6)	Lower part in medial plane of lower leg	Acupuncture for dysmenorrhea(Huang et al., 2023)
	Qunlun(BL60)	Lateral caudal ankle	Acupuncture for pain amelioration in labor(Chu, 2010)
	Dazhong (KI4)	Medial caudal ankle	Acupuncture for pain amelioration of lumbar strain of deficiency type(Qin, 2011)
	Shuiquan(KI5)	Medial plane of heel	Acupoint for pain amelioration(Xie et al., 2008)
Segments	Acupoints	Regional Location	Treat Hiccup
Head or Neck	Cuanzhu(BL2)	Medial facial brow	Acupoint for hiccup(Pan & Ma, 2014)
	Suliao(GV25 or DU25)	Nose tip	Acupoint for hiccup(Fan et al., 2022)
Arm or Hand	Shangyang(LI1)	Frontal index finger end	Acupoint for hiccup(Liu et al., 2021b)

Note: For accurate location and anatomy of acupoints, please refer to Chapple, 2013.

Table-3. Acupoints by dynamic coordination to treat cardiovascular, digestive/excretive and urological/reproductive diseases

Segments	Acupoints	Regional Location	Treat Cardiovascular Diseases
Arm or Hand	Shaohai(HT3)	Caudal medial elbow	Electroacupuncture to improve coronary heart disease(Cheng & Tan, 2008).
	Ximen(PC4)	Midline lower part of medial plane of forearm	Acupuncture to accelerate the coronary slow flow(Shao et al., 2022)
	Jianshi(PC5)	Midline lower part of medial plane of forearm	Acupuncture to regulate the cardiac autonomic disorders(Deng, et al., 2014)
	Neiguan(PC6)	On medial midline and 2 inch above finesse	Acupoint to treat cardiac autonomic disorders(Deng, et al., 2014) and coronary artery disease(Chen et al., 2014)
	Shenmen(HT7)	Posterior wrist end	Electroacupuncture to improve coronary heart disease(Cheng & Tan, 2008)
Segments	Acupoints	Regional Location	Treat Digestive/Excretive Diseases
Arm or Hand	Zhigou(SJ6 or TE6)	Frontal of lateral plane of forearm	Acupoint for constipation(Jiao & Chen, 2021)
	Neiguan(PC6)	On medial midline and 2 inch above finesse	Acupoint for chronic atrophic gastritis(Wang et al., 2018b)
Leg or Foot	Zusanli(ST36)	Connective point between frontal knee and lower leg	Acupoint for digestive/excretive diseases(Li et al., 2022a; Lu et al., 2024; Wang et al., 2018b; Wang et al., 2025; Wang & Liang, 2023)
	Shangjuxu(ST37)	Meddle of midline in frontal plane of lower leg	Acupoint for treatment of constipation(Lu et al., 2024; Wang et al., 2025) and ileus of colon(Liu et al., 2024)
Segments	Acupoints	Regional Location	Treat Urological/Reproductive Diseases
Leg or Foot	Zusanli(ST36)	Connective point between frontal knee and lower leg	Acupoint for chronic glomerulonephritis(Lin et al., 2023a) and dysmenorrhea(Li et al., 2021)
	YinLingQuan(SP9)	Connective point between medial knee and lower leg	Acupoint for uroschesis(Li et al., 2023a) and chronic prostatitis(You et al., 2018)
	Heyang(BL55)	Connective point between caudal knee and lower leg	Moxibustion for dysmenorrhea(Han, 2016)
	Sanyinjiao(SP6)	Lower part in medial plane of lower leg	Acupoint for dysmenorrhea(Huang et al., 2023; Li et al., 2021; Li & Chen, 2022), chronic prostatitis(Liu et al., 2022b; You et al., 2018) and chronic glomerulonephritis(Liu et al., 2023b)
	Jiaoxin(KI8)	Lower part in medial plane of lower leg	Acupoint for urological diseases(Wu, 2024)
	Yinbai (SP1)	Frontal end of foot toe	Acupoint for gynecological diseases(Li et al., 2022b)
	Zhiyin(BL67)	Lateral end of foot toe	Acupoint for dysmenorrhea and malposition(Liu et al., 2021a)

Note: For accurate location and anatomy of acupoints, please refer to Chapple, 2013.

Table-4. Acupoints by thoracic-abdominal-back coordination to treat cardiovascular/pulmonary, digestive/excretive and urological/reproductive diseases

Segments	Acupoints	Regional Location	Treat Cardiovascular/Pulmonary Diseases
Neck	Renying(ST9)	Lateral to midline of neck	Acupoint for treatment of hypertension(Zhao et al., 2024).
	Dazhui(GV14 or DU14)	Caudal lower neck	Acupoint for treatment of hypertension(Cao 2019) and cough variant asthma(Xiong et al., 2023)
Thorax or Abdomen	Feishu(BL13)	Lateral to the midline of upper thoracic back	Acupoint for treatment of cough variant asthma(Xiong et al., 2023)
	Jiquan(HT1)	In axilla	Acupoint for cardiovascular diseases(Qin et al., 2023)
	Danzhong(CV17 or RN17)	Center between two nipples	Acupoint for cardiovascular/pulmonary diseases, pharyngitis(Chen et al., 2014; Wang & Zhang, 2020)
	ZhiYang(GV9 or DU9)	Center on midline of thoracic back	Acupoint for coronary heart disease, angina and other circulatory diseases(Zhao et al., 2016)
	Xinshu(BL15)	Lateral to center on midline of thoracic back	Acupoint for coronary artery disease(Chen et al., 2014)
	Geshu(BL17)	Lateral to midline of lower thoracic back	Imbedding needle at this acupoint for treatment of hypertension(Wei et al., 2018)

	Pishu(BL20)	Lateral to center on midline of thoracic-abdominal back	Acupoint for treatment of cough variant asthma(Xiong et al., 2023)
	Shenshu(BL23)	Lateral to center on midline of back waist	Acupoint for treatment of cough variant asthma(Xiong et al., 2023)
Leg or Foot	YinLingQuan(SP9)	Connective point between frontal knee and lower leg	Acupoint for joint treatment of both urological diseases and periarthritis of shoulder as cardiorenal coupling(Li et al., 2023a)
Segments	Acupoints	Regional Location	Treat Digestive/Excretive Diseases
Thorax or Abdomen	Danzhong(CV17 or RN17)	Center between two nipples	Acupoint for pharyngitis(Wang & Zhang, 2020)
	ZhiYang(GV9 or DU9)	Center on midline of thoracic back	Acupoint for digestive diseases(Zhao et al., 2016)
	Riyue(GB24)	Frontolateral part of lower thorax	Acupuncture for cholecystitis(Qin & Zhang, 2014)
	Liangmen(ST21)	Lateral to center on midline of thoracic-abdomen	Acupoint for gastritis and gastrohelcosis(Chen et al., 2012)
	Zhangmen(LR13)	Lateral part of thoracic-abdomen	Moxibustion for treatment of ulcerative colitis(Luo & Wu, 2017)
	Pishu(BL20)	Lateral to center on midline of thoracic-abdominal back	Moxibustion for treatment of chronic diarrhea(Zhang, 2016)
	Weishu(BL21)	Lateral to center on midline of thoracic-abdominal back	Acupoint for treatment of atrophic gastritis(Wang et al., 2018b)
	Zhongwan(CV12 or RN12)	On midline between thorax and abdomen	Acupoint for treatment of atrophic gastritis(Wang et al., 2018b) and constipation(Wang et al., 2025)
	Shenque(CV8 or RN8)	At umbilicus	Acupoint for treatment of constipation and diarrhea(Yang et al., 2023)
	Tianshu(ST25)	2-inch lateral to umbilicus	Acupoint for treatment of constipation and diarrhea(Chen et al., 2023b; Lu et al., 2024; Wang et al., 2025; Wang & Liang, 2023)
	Qihai(CV6 or RN6)	On midline below umbilicus	Acupoint for treatment of constipation after stroke(Wang et al., 2025)
	Dachangshu(BL25)	Lateral to center on midline of waist back	Acupoint for treatment of constipation after stroke(Wang et al., 2025)
	Guanyuan(CV4 or RN4)	On midline below umbilicus	Acupoint for treatment of constipation(Lu et al., 2024; Wang et al., 2025; Wang & Liang, 2023)
	Fujie(SP14)	On lateral part of abdomen below umbilicus	Needle-embeding therapy to treat diabetic constipation(Zhang, 2011)
Leg or Foot	Zusanli(ST36)	Connective point between frontal knee and lower leg	Acupoint for treatment of constipation after stroke as gut blood-pressure regulation(Wang et al., 2025)
	Shangjuxu(ST37)	Meddle of midline in frontal plane of lower leg	Acupoint for treatment of constipation after stroke as gut blood-pressure regulation(Wang et al., 2025)
Segments	Acupoints	Regional Location	Treat Urological/Reproductive Diseases
Thorax or Abdomen	Ruzhong(ST17)	On nipple	Massage to decrease postpartum flooding(Zeng & Cheng, 2007)
	Pishu(BL20)	Lateral to center on midline of thoracic-abdominal back	Acupoint for chronic glomerulonephritis(Lin et al., 2023a)
	Shenque(CV8 or RN8)	At umbilicus	Acupoint for treatment of dysmenorrhea(Yang et al., 2023)
	Mingmen(GV4 or DU4)	Center on midline of waist back	Acupoint for reproductive diseases(Leng et al., 2022)
	Shenshu(BL23)	Lateral to center on midline of back waist	Acupoint for such urological/reproductive diseases(Huang et al., 2024a) as chronic glomerulonephritis(Lin et al., 2023a; Liu et al., 2023b), prostatitis(Liu et al., 2022b; You et al., 2018).
	Guanyuan(CV4 or RN4)	On midline below umbilicus	Acupoint for prostatitis(Liu et al., 2022b; You et al., 2018), urinary retention and dysmenorrhea(Fu et al., 2021; Li & Chen, 2022; Li et al., 2021)
	Shuidao(ST28)	On lateral part of abdomen below umbilicus	Massage to ameliorate the postpartum urinary retention(Chen et al., 2023c)

	Ciliao(BL32)	Lateral to midline of lower back waist	Acupoint for treatment of dysmenorrhea(Li et al., 2021) and amelioration of pain in labor(Long & Liu, 2022)
	Zhongji(CV3 or RN3)	On midline near the bottom of abdomen	Acupoint for prostatitis(Liu et al., 2022b; You et al., 2018), anuresis and dysmenorrhea(Cai, 2009)
	Baihuanshu(BL 30)	Near the bottom of abdominal back and lateral to midline	Acupuncture and moxibustion to treat chronic prostatitis(Ge & Ge, 2001)
	Qugu(CV2 or RN2)	On midline at the bottom of abdomen	Acupoint for urinary retention,erectile dysfunction and prostatitis(Tang et al., 2023)
	Huiyang(BL35)	Lateral to the end of ossa coccygis	Acupoint for urinary incontinence, urinary retention, and prostatic hyperplasia(Pan & Lu, 2021)
Leg or Foot	YinLingQuan(SP9)	Connective point between medial knee and lower leg	Acupoint for joint treatment of both uroschesis and periarthritis of shoulder as cardiorenal coupling(Li et al., 2023a)

Note: For accurate location and anatomy of acupoints, please refer to Chapple, 2013.

Table-5. Acupoints by emotional coordination to treat psychiatric diseases

Segments	**Acupoints**	**Regional Location**	**Treat Depression**
Head or Neck	Baihui(GV20 or DU20)	Top of skull	Acupoint for treatment of depression(Zhao et al., 2018b; Sun et al., 2022)
	Yintang(EX-HN3, GV29 or DU29)	On midline at the center between two brows	Acupoint for treatment of depression(Zhao et al., 2018b; Sun et al., 2022)
	Fengchi(GB20)	Caudal neck	Acupoint for treatment of depression(Liu et al., 2023a)
Arm or Hand	Neiguan(PC6)	On medial midline and 2 inch above finesse	Acupoint for treatment of depression(Zhao et al., 2018b; Sun et al., 2022)
	Shenmen(HT7)	Posterior wrist end	Acupoint for treatment of depression(Zhao et al., 2018b; Sun et al., 2022)
Thorax or Abdomen	Danzhong(CV17 or RN17)	Center between two nipples	Acupoint for poststroke depression(Wang & Zhang, 2020)
	Qimen(LR14)	Frontal skin surface of lung below breast	Acupoint for treatment of depression(Zheng & Zhou, 2017)
Leg or Foot	Zusanli(ST36)	Connective point between frontal knee and lower leg	Acupoint for treatment of depression(Zhao et al., 2018b)
	Sanyinjiao(SP6)	Lower part in medial plane of lower leg	Acupoint for treatment of depression(Zhao et al., 2018b)
	Taichong(LR3)	Foot back	Acupoint for treatment of depression(Sun et al., 2022)
	Yinbai (SP1)	Frontal end of foot toe	Acupoint for treatment of depression(Li et al., 2022b)
	Yongquan(KI1)	Frontal part on midline of foot base	Acupoint for poststroke depression(Cao & Cao, 2020)
Segments	Acupoints	Regional Location	Treat Anxiety
Head or Neck	Baihui(GV20 or DU20)	Top of skull	Acupoint for treatment of anxiety(Chen et al., 2023a; Li et al., 2022c)
	Yintang(EX-HN3, GV29 or DU29)	On midline at the center between two brows	Acupoint for treatment of anxiety(Chen et al., 2023a; Kwon & Lee, 2018; Li et al., 2022c)
	Fengchi(GB20)	Caudal neck	Acupoint for treatment of anxiety(Li et al., 2022c)
Arm or Hand	Neiguan(PC6)	On medial midline and 2 inch above finesse	Acupoint for treatment of anxiety(Chen et al., 2023a; Li et al., 2022c; Wang et al., 2017)
	Shenmen(HT7)	Posterior wrist end	Acupoint for treatment of anxiety(Chen et al., 2023a; Li et al., 2022c)
Leg or Foot	Zusanli(ST36)	Connective point between frontal knee and lower leg	Acupoint for treatment of anxiety(Wang et al., 2017)
	Sanyinjiao(SP6)	Lower part in medial plane of lower leg	Acupoint for treatment of anxiety(Chen et al., 2023a; Li et al., 2022c)
Segments	Acupoints	Regional Location	Treat Schizophrenia
Head or Neck	Baihui(GV20 or	Top of skull	Acupoint for treatment of schizophrenia(Li et

	DU20)		al., 2024a; Liang & Gao, 2019; Ma, 2005; Xiong et al., 2010)
	Shenting(GV24 or DU24)	Frontal top of skull	Acupoint for treatment of schizophrenia(Li et al., 2024a; Ma, 2005)
	Yintang(EX-HN3, GV29 or DU29)	On midline at the center between two brows	Acupoint for treatment of schizophrenia(Liang & Gao, 2019)
	Taiyang(GB1)	Lateral to eye corner	Acupoint for treatment of schizophrenia(Xiong et al., 2010)
Arm or Hand	Neiguan(PC6)	On medial midline and 2 inch above finesse	Acupoint for treatment of schizophrenia(Li et al., 2024a; Liang & Gao, 2019)
	Shenmen(HT7)	Posterior wrist end	Acupoint for treatment of schizophrenia(Liang & Gao, 2019)
	Hegu(LI4)	Hand back near thumb	Acupoint for treatment of schizophrenia(Liang & Gao, 2019)
Leg or Foot	Zusanli(ST36)	Connective point between frontal knee and lower leg	Acupoint for treatment of schizophrenia(Li et al., 2024a; Liang & Gao, 2019)
	Fenglong(ST40)	Middle part in frontal plane of lower leg	Acupoint for treatment of schizophrenia(Liang & Gao, 2019)
	Sanyinjiao(SP6)	Lower part in medial plane of lower leg	Acupoint for treatment of schizophrenia(Liang & Gao, 2019)
	Taichong(LR3)	Foot back	Acupoint for treatment of schizophrenia(Liang & Gao, 2019)

Note: For accurate location and anatomy of acupoints, please refer to Chapple, 2013.