Gu J, Int J Case Rep Ther Stud 2025, 5: 027
DOI: 10.24966/CRTS-310X/100027

HSOA International Journal of Case Reports and Therapeutic Studies

Case Report

Treatment of Language Developmental Delay Based on the Principles of Huangdi Internal Acupuncture: A Case Report

Jirui Gu*

Department of Rehabilitation Medicine, West China Second University Hospital, Sichuan University, China

Abstract

Objective: This study aims to present a clinical case of language delay successfully treated with Huangdi internal acupuncture and to analyze its therapeutic mechanisms through the integration of Zangxiang theory, holistic concept, and meridian theory from classical Chinese medicine, thereby promoting acupuncture as a safe, economical, and effective therapy.

Methods: An individualized acupuncture protocol was developed based on holistic and Zangxiang theories, using Huangdi internal acupuncture as the primary framework combined with meridian circulation and acupoint characteristics. The treatment involved a combination of scalp and body acupuncture, applied alternately on the limbs. Sessions were conducted once daily, 5 days per week, each lasting 30 minutes, for a total of 20 sessions.

Results: Post-treatment assessment using the Griffiths Mental Development Scales indicated significant improvements in the child's social interaction, daily living skills, and compliance. Language evaluation revealed enhancements in auditory attention, vocabulary comprehension, memory, labial and lingual movement, and oral motor coordination. The child also demonstrated clearer pronunciation and increased initiative in expression. Overall, marked progress was observed in memory, comprehension, communication, and emotional regulation.

Conclusion: Acupuncture proves to be an effective, minimally invasive, and safe therapeutic option for language delay, worthy of broader clinical promotion.

***Corresponding author:** Jirui Gu, Department of Rehabilitation Medicine, West China Second University Hospital, Sichuan University, China, E-mail: 1004421618@QQ.COM

Citation: Gu J (2025) Treatment of Language Developmental Delay Based on the Principles of Huangdi Internal Acupuncture: A Case Report. Int J Case Rep Ther Stud 5: 027.

Received: October 24, 2025; **Accepted:** November 04, 2025; **Published:** November 11, 2025

Background

Language development delay, characterized by deficits in comprehension and expression, markedly impairs social communication in children [1]. This study implemented a comprehensive rehabilitation approach targeting cognitive, sensory, articulatory, and environmental factors. Post-intervention outcomes demonstrated significant improvements in language comprehension, acquisition, and spontaneous vocalization, effectively alleviating the disorder [2]. These results highlight the clinical value of structured rehabilitation in managing language delay and support the formulation of evidence-based intervention strategies.

Basic Case Information

This case involves a preschool male child born at full term via cesarean delivery, with no notable birth complications. Family history is notable for paternal stuttering. While gross motor milestones were achieved within normal limits, the child exhibited significant delays in functional verbal communication by age 5.

Diagnostic Process

The patient was initially evaluated at the Department of Pediatric Neurology and Rehabilitation, West China Second University Hospital, Sichuan University, on November 9, 2022. Chief complaints included impaired articulation and reduced functional communication ability. Additional clinical observations comprised difficulty producing multi-word utterances, a tendency toward self-directed speech, and limited language comprehension, although eye contact was notably preserved.

Auxiliary Examinations Conducted Prior to Referral

A series of assessments conducted in July 2022 revealed deficits in articulation (e.g., plosive /d/, nasal /n/), expressive vocabulary, and grammar comprehension, despite normal hearing. The child was preliminarily diagnosed with Speech and Language Developmental Disorder, with Autism Spectrum Disorder ruled out as a differential.

Initial Medical Orders

Routine pediatric EEG; cranial MRI (axial plain scan); Autism Diagnostic Observation Schedule (ADOS); comprehensive language function assessment; Griffiths Developmental Scales (0–8 years); and family-based language rehabilitation guidance.

Follow-Up Evaluation (December 28, 2022)

Despite normal EEG and ADOS-2 scores ruling out autism, the child exhibited global developmental delays on the Griffiths Scales and significant speech-motor deficits. This led to a final diagnosis

of Global Developmental Delay (GDD). Recommended interventions included speech and sensory integration therapy, while due to COVID-19 restrictions, planned MRI and rehabilitative interventions were postponed.

Subsequent Traditional Chinese Medicine (TCM) Intervention

On March 28, 2023, the family sought TCM consultation due to limited improvement with prior treatment. At that time, the child could participate in simple communication but continued to exhibit unclear pronunciation and poor comprehension. Physical findings included a pale tongue with thin, slightly greasy white coating; moderate pulse with slightly deep chi pulse. TCM diagnosis was "Delayed Speech" attributed to Kidney Qi Deficiency [3], and Liuwei Dihuang Wan was prescribed.At follow-up on April 18, 2023, language deficits persisted. The TCM diagnosis remained unchanged. On July 26, 2024, acupuncture was formally initiated as part of the multidisciplinary therapeutic regimen.

Treatment Plan and Procedure

Methods: Using sterile needles (0.5 cun (diameter 0.18 mm × length 13 mm) /1 cun(diameter 0.25 mm × length 25 mm)), Deqi was elicited via standardized manipulation after subcutaneous insertion. Needles were retained for 30 minutes. The protocol integrated scalp and body acupuncture based on Huangdi Internal Acupuncture theory.

Acupoints

- **Upper limbs:** LU5, LU7, PC6, HT5, LI4, SI3
- **Lower limbs**: SP10, SP9, ST36, GB39, SP6, KI3, KI4, BL60, LR3, KI1
- **Head**: GV20, EX-HN1, GV24, GB13, GV17, GB19, GB20, GV15

Sessions were conducted once daily, 5 days per week, each lasting 30 minutes, for a total of 20 sessions.

Treatment Outcomes

Follow-up Results: The November 2023 Griffiths Scales (GDS-C) reassessment showed notable improvements in personal-social skills, visual performance, and hand-eye coordination. Language evaluation indicated enhanced comprehension of complex instructions, auditory attention, vocabulary, and memory. Oro-motor function improved, leading to clearer articulation and increased spontaneous speech. Parents reported better emotional regulation, reduced behavioral issues, age-appropriate independent thinking, and the ability to recall information and follow one-step commands. No further nocturnal enuresis occurred. In summary, acupuncture was associated with broad functional gains across developmental domains.

A comparison of GDS-measured multifunctional abilities before and after acupuncture treatment is presented below (Table 1):

		Locomotor	Personal-social	Hearing and speech	Eye and hand coordination	Performance	Practial reasoning
assessment	Pre-Treatment	52	48	42	34	38	46
score	Post-Treatment	50	64	52	54	54	54
equivalent	Pre-Treatment	42.5	37	36.5	33.5	35.5	33
month-age	Post-Treatment	41	47	41.5	47	46	39
percent%	Pre-Treatment	2.5	<1	1	<1	<1	<1
	Post-Treatment	<1	2.5	1	<1	1	<1

Table 1: GDS Pre- vs. Post-Treatment Assessment Comparison.

Discussion

In Traditional Chinese Medicine (TCM), language developmental delay is termed "Yu Chi [4]." Its etiology is primarily attributed to congenital deficiencies and visceral dysfunctions that lead to insufficiency of qi and blood, ultimately failing to nourish the brain. The kidneys, heart, and spleen [5] are considered key organs, as their dysharmony can impair intellectual and linguistic development [6].

Traditional Chinese Medicine (TCM) is a medical system grounded in a "human-nature-society" holistic model. Guided by classical Chinese philosophy, it employs theories like yin-yang and the five elements to explain health and disease. Its practice is characterized by two principles: "holism," viewing the body as an organic whole where internal states manifest externally, and "treatment based on syndrome differentiation." This framework gave rise to the visceral manifestation theory, which links organ functions to mental and physiological activities (e.g., "the heart governs mental activities").

The System of Five Zang Organs

According to the theory of visceral manifestation in Traditional Chinese Medicine (TCM), the human body constitutes an integrated organism characterized by structural unity, functional interdependence, metabolic interconnectivity, and pathological mutual influence. This system is organized around the five zang organs—the heart, liver, spleen, lung, and kidney—which are interconnected through the meridian system with their paired fu organs, corresponding tissues, sense organs, orifices, and extremities [7]. Specifically:

- The liver system encompasses the liver, gallbladder, tendons, eyes, and nails.
- The heart system comprises the heart, small intestine, blood vessels, tongue, and face.
- The spleen system includes the spleen, stomach, muscles, mouth, and lips.
- The lung system involves the lungs, large intestine, skin, nose, and body hair.
- The kidney system consists of the kidneys, bladder, bones, marrow, ears, and hair.

The Meridian System: Linking Qi, Blood, and Zang-Fu Organs

In traditional medicine, meridians form a foundational network that interconnects the body and facilitates physiological regulation.

The therapeutic efficacy of modalities like acupuncture hinges on the arrival of "qi" (deqi sensation). Specific organs are linked to speech function through their associated meridians:

Heart: Governs mental activity; its meridian connects to the tongue. Dysfunction can cause speech disorders.

Lungs: Govern the throat (gateway of voice); qi deficiency leads to hoarseness.

Spleen: Governs muscles and the mouth; qi deficiency can impair oral motor control.

Functional Reciprocity within the Zang-Fu Organ System:

The heart and spleen interact to support cognitive and expressive functions, as articulated in the classical doctrine: "Thought originates from the heart, and the spleen stores intention" [8].

The liver governs free coursing , which facilitates the smooth flow of qi. Stagnation of liver qi may disrupt the functional harmony among organs, meridians, tissues, and orifices.

The kidneys play a foundational role by storing congenital essence (jing) and governing growth and development. In pediatric cases, deficiency of kidney jing can manifest as the "five delays and five weaknesses"—delays in standing, walking, hair growth, tooth eruption, and speech, accompanied by softness of the neck, mouth, limbs, and muscles [9].

The Anatomical Course of Meridians Defines Their Therapeutic Targets

According to the meridian principle"where a meridian passes, it governs," speech organs (lips, tongue, throat) are traversed by specific meridians. The lips are connected by the Large Intestine, Stomach, and Liver meridians; the tongue by the Spleen, Kidney, and Heart meridians; and the throat by the Kidney, Liver, and Conception Vessel. Therefore, voice disorders can be treated by selecting points from these meridians, including LI, ST, LR, SP, KI, HT, PC, and Ren Mai.

Huangdi Internal Acupuncture:

Furthermore, this case incorporated Huangdi Internal Acupuncture—an ancient needling technique—which demonstrated notable clinical efficacy. This method adheres to four fundamental principles:

- Needling lower regions to treat upper-body disorders, and vice versa.
- Needling the right side to treat left-side disorders, and vice versa.
- Applying the concept of "resonance of homologous energetic systems" to treat disease.
- Utilizing inversion techniques to treat yin through yang, and vice versa [10].

Three Powers Doctrine and Triple Energizer Theory

Huangdi Internal Acupuncture integrates the "Three Powers Doctrine" from the Yi Zhuan, which describes Heaven, Humanity, and Earth as the three fundamental domains. This theory correlates the upper, middle, and lower energizers with these domains, and further classifies the body into "Trunk Triple Energizer" and "Limb Triple Energizer" subsystems.

Resonance of Homologous Energetic Systems

The principle of "resonance of homologous energetic systems" encompasses two distinct aspects: Firstly, it refers to the topographic correspondence between the upper, middle, and lower compartments of the body. Pathological conditions occurring in the trunk can thus be addressed by stimulating their corresponding regions in the limbs. Secondly [11], this concept implies that homonymous meridians located in the hands and feet can mutually interact and access shared qi.

The Practical Application of Huangdi Internal Acupuncture

Based on the "Three Powers and Triple Energizer" theory in Huangdi Internal Acupuncture, point selection begins by localizing the pathology and identifying corresponding acupoints according to spatial relationships. Subsequent selection follows the "seeking qi from homologous regions" principle, stimulating homonymous hand and foot meridians. This approach reflects the TCM holistic view of the body as an integrated system interconnected with the natural environment [12].

Biochemical and Neuroimaging Evidence

Supported by biochemical and neuroimaging evidence [13-16], acupuncture exerts multifaceted neuromodulatory effects. These include enhanced functional connectivity involving language-related areas such as Broca's region, modulation of neuroendocrine and hippocampal serotonin signaling, and activation of cognitive and sensory brain networks—including somatosensory, auditory, visual, limbic, and cerebellar regions—through stimulation of specific acupoints.

Acupuncture Treatment Review

A pediatric case of dysphonia was treated by selecting distal acupoints at the wrist and ankle, corresponding to the upper jiao (thoracic cavity) under regional correspondence theory. Key acupoints included LU7, PC6, HT5, and LI4 on the upper limbs, and SP6, KI3, KI4, and LR3 on the lower limbs, based on Zang-fu and meridian indications. Scalp acupuncture points—GV20, EX-HN1, GV17, GB19, GV24, and GB13—were added to stimulate relevant cerebral lobes.

Conclusion

The combined scalp and body acupuncture regimen employed in this case not only promotes local cerebral perfusion—thereby enhancing associated neural functions—but also modulates meridian-based qi dynamics to regulate visceral activity and sensory orifice function. This approach achieves integrated regulation of both central and peripheral pathways, with synergistic interactions between the two mechanisms [17,18]. Furthermore, acupuncture is well-tolerated without significant adverse effects, and represents a cost-effective, straightforward, minimally invasive, and clinically effective intervention. Thus, it demonstrates strong potential for broader clinical adoption.

References

1. Rinaldi P, Bello A, Lasorsa FR, Caselli MC (2022) Do Spoken Vocabulary and Gestural Production Distinguish Children with Transient Language Delay from Children Who Will Show Developmental Language Disorder: A Pilot Study. Int Environ Res Public Health 19: 3822-3839.
2. Blok LS, Vino A, Hoed J, Underhill HR, Monteil D, et al. (2021) Heterozygous variants that disturb the transcription al repressor activity of FOXP4 cause a developmental disorder with speech/language delays and multiple congenital abnormalities. Genet Med 23: 534-542.

3. Zhu WF (2000) Diagnostics of Traditional Chinese Medicine. China Press of Traditional Chinese Medicine, BeiJing, China.

4. Chong PLH, Abel E, Pao R, McCormick CEB, Schwichtenberg AJ (2021) Sleep Dysregulation and Daytime Electrodermal Pat terns in Children With Autism: A Descriptive Study J Genet Psychol 182: 335-347.

5. Utianski RL, Duffy JR (2022) Understanding, Recognizing, and Managing Functional Speech Disorders: Current Thinking Illustrated With a Case Series. American journal of speech-language pathology 31: 1205-1220.

6. Feltner C, Wallace IF, Nowell SW, Orr CJ, Raffa B, et al. (2024) Screening for speech and language delay and disorders in children 5 years or younger. JAMA 331: 335-351.

7. Mingmin T, Wenchun Z (2022) The Deity System in "The Inner Chapters of the Yellow Court Classic" and the Theory of Zangxiang in Traditional Chinese Medicine. Chinese Journal of Integrative Medicine 37: 6081-6083.

8. Peiji C, Yanli Z (2022) Analysis of the Therapeutic Effect and CARS Score of Modified Guipi Decoction in the Treatment of Autistic Children with Heart-Spleen Deficiency Syndrome. Clinical Research 30: 128-131.

9. Lingjia L, Yanping F, Junhong W (2025) Research Progress on Treating Childhood Autism from the Perspective of "Five Organs' Correspondence Theory" and "Five Spirits Concealment Theory". Clinical Diagnostic Errors and Treatment Errors 38: 95-100.

10. Yanxu W (2023) Analysis of the Principles and Clinical Significance of Acupuncture Point Selection in the "Huangdi Neijing". Journal of Massage and Rehabilitation Medicine 14: 39-41.

11. Yunying Y, Yanhua J, Ting R (2024) Clinical Observation on the Treatment of Cervicogenic Insomnia with Huangdi Neijin. Journal of Practical Traditional Chinese Medicine 40: 343-345.

12. Jinyan Z, Suren L, Shenghong Z (2025) Adjusting "Spleen" based on the holistic concept of traditional Chinese medicine for treating "Spleen-related Disease". Chinese Health Preservation and Care 43: 82-84.

13. Campbell KL, Tyler LK (2018) Language-related domain-specific and domain-general systems in the human brain. Curr Opin Behav Sci 21: 132-137.

14. Catani M, Mesulam M (2008) The arcuate fasciculus and the disconnection theme in language and aphasia: history and current state. Cortex 44: 953-961.

15. Bonilha L, Hillis AE, Wilmskoetter J, Hickok G, Basilakos A, et al. (2019) Neural structures supporting spontaneous and assisted (entrained) speech fluency. Brain 142: 3951-3962.

16. Zhang J, Zhong S, Zhou L, Yu Y, Tan X, et al. (2021) Correlations between Dual-Pathway White Matter Alterations and Language Impairment in Patients with Aphasia: A Systematic Review and Meta-analysis. Neuropsychol Rev 31: 402-418.

17. Zheng H, Li Y, Zhang W, Zeng F, Zhou SY, et al. (2016) Electroacupuncture for patients with diarrhea-predominant irri table bowel syndrome or functional diarrhea: a randomized controlled trial. Medicine (Baltimore) 95: 3884.

18. Zheng H, Liu ZS, Zhang W, Chen M, Zhong F, et al. (2018) Acupuncture for patients with chronic functional constipati on:a randomized controlled trial. Neurogastroenterol Motil 30: 13307.

HERALD

Advances In Industrial Biotechnology | ISSN: 2639-5665

Advances In Microbiology Research | ISSN: 2689-694X

Archives Of Surgery And Surgical Education | ISSN: 2689-3126

Archives Of Urology

Archives Of Zoological Studies | ISSN: 2640-7779

Current Trends Medical And Biological Engineering

International Journal Of Case Reports And Therapeutic Studies | ISSN: 2689-310X

Journal Of Addiction & Addictive Disorders | ISSN: 2578-7276

Journal Of Agronomy & Agricultural Science | ISSN: 2689-8292

Journal Of AIDS Clinical Research & STDs | ISSN: 2572-7370

Journal Of Alcoholism Drug Abuse & Substance Dependence | ISSN: 2572-9594

Journal Of Allergy Disorders & Therapy | ISSN: 2470-749X

Journal Of Alternative Complementary & Integrative Medicine | ISSN: 2470-7562

Journal Of Alzheimers & Neurodegenerative Diseases | ISSN: 2572-9608

Journal Of Anesthesia & Clinical Care | ISSN: 2378-8879

Journal Of Angiology & Vascular Surgery | ISSN: 2572-7397

Journal Of Animal Research & Veterinary Science | ISSN: 2639-3751

Journal Of Aquaculture & Fisheries | ISSN: 2576-5523

Journal Of Atmospheric & Earth Sciences | ISSN: 2689-8780

Journal Of Biotech Research & Biochemistry

Journal Of Brain & Neuroscience Research

Journal Of Cancer Biology & Treatment | ISSN: 2470-7546

Journal Of Cardiology Study & Research | ISSN: 2640-768X

Journal Of Cell Biology & Cell Metabolism | ISSN: 2381-1943

Journal Of Clinical Dermatology & Therapy | ISSN: 2378-8771

Journal Of Clinical Immunology & Immunotherapy | ISSN: 2378-8844

Journal Of Clinical Studies & Medical Case Reports | ISSN: 2378-8801

Journal Of Community Medicine & Public Health Care | ISSN: 2381-1978

Journal Of Cytology & Tissue Biology | ISSN: 2378-9107

Journal Of Dairy Research & Technology | ISSN: 2688-9315

Journal Of Dentistry Oral Health & Cosmesis | ISSN: 2473-6783

Journal Of Diabetes & Metabolic Disorders | ISSN: 2381-201X

Journal Of Emergency Medicine Trauma & Surgical Care | ISSN: 2378-8798

Journal Of Environmental Science Current Research | ISSN: 2643-5020

Journal Of Food Science & Nutrition | ISSN: 2470-1076

Journal Of Forensic Legal & Investigative Sciences | ISSN: 2473-733X

Journal Of Gastroenterology & Hepatology Research | ISSN: 2574-2566

Journal Of Genetics & Genomic Sciences | ISSN: 2574-2485

Journal Of Gerontology & Geriatric Medicine | ISSN: 2381-8662

Journal Of Hematology Blood Transfusion & Disorders | ISSN: 2572-2999

Journal Of Hospice & Palliative Medical Care

Journal Of Human Endocrinology | ISSN: 2572-9640

Journal Of Infectious & Non Infectious Diseases | ISSN: 2381-8654

Journal Of Internal Medicine & Primary Healthcare | ISSN: 2574-2493

Journal Of Light & Laser Current Trends

Journal Of Medicine Study & Research | ISSN: 2639-5657

Journal Of Modern Chemical Sciences

Journal Of Nanotechnology Nanomedicine & Nanobiotechnology | ISSN: 2381-2044

Journal Of Neonatology & Clinical Pediatrics | ISSN: 2378-878X

Journal Of Nephrology & Renal Therapy | ISSN: 2473-7313

Journal Of Non Invasive Vascular Investigation | ISSN: 2572-7400

Journal Of Nuclear Medicine Radiology & Radiation Therapy | ISSN: 2572-7419

Journal Of Obesity & Weight Loss | ISSN: 2473-7372

Journal Of Ophthalmology & Clinical Research | ISSN: 2378-8887

Journal Of Orthopedic Research & Physiotherapy | ISSN: 2381-2052

Journal Of Otolaryngology Head & Neck Surgery | ISSN: 2573-010X

Journal Of Pathology Clinical & Medical Research

Journal Of Pharmacology Pharmaceutics & Pharmacovigilance | ISSN: 2639-5649

Journal Of Physical Medicine Rehabilitation & Disabilities | ISSN: 2381-8670

Journal Of Plant Science Current Research | ISSN: 2639-3743

Journal Of Practical & Professional Nursing | ISSN: 2639-5681

Journal Of Protein Research & Bioinformatics

Journal Of Psychiatry Depression & Anxiety | ISSN: 2573-0150

Journal Of Pulmonary Medicine & Respiratory Research | ISSN: 2573-0177

Journal Of Reproductive Medicine Gynaecology & Obstetrics | ISSN: 2574-2574

Journal Of Stem Cells Research Development & Therapy | ISSN: 2381-2060

Journal Of Surgery Current Trends & Innovations | ISSN: 2578-7284

Journal Of Toxicology Current Research | ISSN: 2639-3735

Journal Of Translational Science And Research

Journal Of Vaccines Research & Vaccination | ISSN: 2573-0193

Journal Of Virology & Antivirals

Sports Medicine And Injury Care Journal | ISSN: 2689-8829

Trends In Anatomy & Physiology | ISSN: 2640-7752