

Exploring the Treatment of Cognitive Impairment with Depression from the Perspective of Regulating Qi and Restoring Mental Function under the Theory of “Qi Monism”

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Abstract: *Based on the philosophical foundation of Traditional Chinese Medicine (TCM) known as “Qi monism,” this paper systematically explores the clinical application value of the theory of ascending and descending Qi in Cognitive Impairment with Depression (CID). By reviewing classical medical texts and modern research, we analyze the intrinsic relationship between the etiology and pathogenesis of CID and dysregulation of Qi movement. A three-dimensional treatment model—centered on the “Middle Jiao as Pivot, Liver-Lung as Peripheral Wheel, Heart-Kidney as Root”—is proposed to establish a syndrome differentiation and treatment system, offering new therapeutic insights for clinical practice.*

Keywords: Qi monism, Qi movement (ascending and descending), Cognitive impairment, Depression.

1. Introduction

Depression comorbid with cognitive impairment is associated with high mortality and disability rates, imposing a significant burden. Therefore, early prevention of depression with cognitive impairment is particularly crucial for high-risk populations, especially elderly patients. Mild cognitive impairment (MCI) represents a transitional state between normal aging and early-stage dementia and has been widely studied in recent years as a key intervention point to delay dementia progression. Early diagnosis and timely intervention are critical for treating cognitive impairment. In a narrow sense, cognitive impairment refers to declines in specific cognitive functions (e.g., memory, comprehension, or other single-domain abilities) caused by neurodegenerative diseases. Broadly, cognitive impairment encompasses declines in multiple psychological abilities, including attention, memory, information processing, problem-solving, reasoning, and decision-making.

In China, the overall prevalence of dementia among individuals aged 60 and above is 6.0%. Given that China is currently one of the most rapidly aging countries in the world, with 17.9% of its population being 60 years or older, this translates to approximately 15.07 million adults living with dementia [1]. Cognitive impairment affects various domains, such as social functioning, interpersonal relationships, health-related quality of life, and treatment adherence, causing immense suffering for patients. Additionally, the persistently high disability rate further exacerbates the societal burden [2].

2. Qi Monism and Traditional Chinese Medicine

“Qi monism” refers to a theoretical system that regards “Qi” as the origin of all things in the universe, originating from ancient Chinese philosophy. Over time, this philosophical

system evolved into a worldview and methodology grounded in material “Qi” as the primordial substance and its dynamic transformations (“Qi transformation”) as the driving force of existence—providing the fundamental theoretical basis for TCM.

Laozi, the founder of Daoism, stated: “The Dao gives rise to the One; the One gives rise to the Two...” and “Harmony arises from balanced Qi.” This suggests that all things in the universe originate from Qi, and their functional maintenance depends on Qi transformation. Qi is viewed as a subtle natural substance whose aggregation and dispersion manifest as the birth, growth, and death of all beings—including humans. TCM adopts this concept as its starting point [3], using the dynamics of Qi to explain physiological and pathological processes in the human body, which are deeply interconnected with nature and the environment. As stated in *Suwen·Baoming Quanxing Lun*: “Humans are born of Earth, sustained by Heaven; when Earth and Heaven unite in Qi, life is formed.” Furthermore, as noted in *Lingshu·Zhongshi*: “In acupuncture, treatment aims at regulating Qi; balancing Yin and Yang restores voice and hearing, brightens vision; otherwise, blood and Qi will not flow properly.” Therefore, understanding pathology through the lens of Qi movement aligns with and advances TCM theory.

3. The Relationship Between Qi and Essence (Jing)

In TCM, both Qi and Jing are fundamental substances constituting the human body and sustaining life activities. They are closely related, interdependent, and mutually transformable, jointly maintaining physiological functions and the life process.

From the perspective of origin and generation, both Qi and Jing derive from prenatal endowment and are nourished

postnatally. Prenatal Jing is inherited from parents and stored in the kidneys, serving as the original material of life. Prenatal Qi (Yuan Qi) is generated from this prenatal Jing, relying on the warming and promoting action of kidney essence. Postnatal Jing comes from food and drink, transformed by the Spleen and Stomach, and stored in the five Zang organs. Postnatal Qi—including Zong Qi, Ying Qi, and Wei Qi—originates from fresh air inhaled by the lungs and the refined nutrients produced by the Spleen and Stomach, which are also the source of postnatal Jing. Thus, Jing generates Qi: whether it's prenatal Jing generating Yuan Qi or postnatal Jing supporting organ Qi, sufficient Jing leads to abundant Qi. Conversely, Qi can also generate Jing: the dynamic activity of Qi stimulates and promotes the digestive function of the Spleen and Stomach and overall organ function, enabling the transformation of food into essential nutrients and preventing the loss of bodily fluids. Abundant Qi ensures adequate Jing production.

Functionally, Jing is Yin in nature—static, formative, and nourishing—forming the material basis of the body and its activities. Qi belongs to Yang—dynamic, warming, promoting, defending, and consolidating—and serves as the driving force of life. Jing and Qi support each other, reflecting the balance of Yin and Yang: internal Jing requires Qi's propulsion and control for normal metabolism and distribution, while Qi's functions depend on Jing as a material foundation. For example, the relationship between kidney Jing and kidney Qi exemplifies this mutual dependence. Adequate kidney Jing produces sufficient kidney Qi, and strong kidney Qi promotes the generation and conservation of Jing.

In pathological conditions, they influence each other reciprocally. Deficiency of Jing may lead to Qi deficiency—for instance, insufficient kidney Jing results in inadequate Yuan Qi, leading to developmental delays. Conversely, Qi depletion can damage Jing—for example, Qi deficiency fails to consolidate essence, resulting in symptoms like nocturnal emission or spermatorrhea, or weak Qi impairs transformation, leading to insufficient production of postnatal Jing. Clinically, syndromes of dual deficiency of Qi and Jing are common, requiring simultaneous supplementation, such as using herbs like deer antler (Lu Rong) and ginseng (Ren Shen), which nourish both Jing and Qi.

Historically, dementia had no precise name in ancient China but was described as “forgetfulness” or “poor memory.” The term “forgetfulness” (*Jian Wang*) first appeared in *Taiping Shenghui Fang*. Later physicians continued its use. The brain is regarded as the residence of the “original spirit” and the center of thought and consciousness. As stated in *Jin Kui Yu Han Jing*: “The head is the chief of the body, where the human spirit resides.” Lin Peiqin, in *Leizheng Zhicai Jian Wang*, wrote: “Human spirit resides in the heart, the heart's essence relies on the kidney, and the brain is the sea of original spirit and marrow—it is the foundation of memory.” Zhang Jingyue commented in *Leijing Yunqi Lei*: “The brain is the sea of marrow, known as the upper dantian, dwelling place of the supreme deity, also called the niwan palace, governing all mental faculties,” indicating that the brain, as the reservoir of marrow, plays a crucial role in mental activities.

Throughout history, many physicians attributed dementia to emptiness of the marrow sea. For example, Wang Ang noted in *Bencao Beiyao Xinyi*: “Memory resides in the brain. Children forget because their brains are not yet full; elderly people forget because their brains gradually become empty.” While aging and declining marrow may seem like a natural process, from the perspective of the circulation of Qi, emptiness of the marrow sea is linked to dysfunction in multiple viscera due to imbalanced Qi dynamics—not merely aging or depletion of congenital essence.

As recorded in *Lingshu Ben Shen*: “When liver is injured by sorrow and grief, the soul is damaged, leading to mania and forgetfulness...” Chen Shiduo in *Bianzheng Lu* stated: “Some people suffer from stagnant Qi, feeling absent-minded and unable to remember current events—as if they were elderly and forgetful. This is due to stagnation of liver Qi, not deficiency of heart or kidney.” This highlights that emotional regulation primarily depends on the liver's dispersing function. Although the brain houses the marrow, liver and kidney share a common origin. Kidney essence deficiency often accompanies liver blood insufficiency; excessive liver wood may overwhelm the spleen (wood overacting on earth), impairing nourishment of the five organs and preventing clear Yang from rising. Alternatively, liver Qi stagnation may generate phlegm and blood stasis, obstructing meridians; or insufficient water fails to nourish wood (liver), causing hyperactivity of liver Yang, clouding the head and leading to forgetfulness.

Zhu Danxi wrote in *Danxi Xinfal Jian Wang*: “Forgetfulness often occurs in those with shortness of breath and fatigue, and sometimes involves phlegm.” The spleen disperses refined nutrients; when spleen Qi is weak, transportation of Qi and blood becomes ineffective, fluid metabolism falters, giving rise to pathological products such as phlegm and stasis. These further obstruct Qi flow, impairing circulation of body fluids and blood. Phlegm and stasis ascending to obscure the orifices result in slowed thinking and poor memory. Simultaneously, Qi stagnation directly affects the smooth functioning of mental activities, leading to low mood and loss of interest. As said: “All cases of depression stem from liver disorders.”

If the ascending and descending movements of Qi become disordered—for example, failure of heart-kidney communication (heart fire flaring upward, kidney water deficient below), or liver Qi invading the spleen—this disrupts Yin-Yang balance and disturbs mental stability. Symptoms include excessive rumination, irritability, anxiety, insomnia, frequent dreams, and slowed reactions—both emotional and cognitive impairments.

4. Modern Medical Evidence Linking Depression and Cognitive Impairment

Major Depressive Disorder (MDD) is characterized by persistent low mood, loss of interest, and reduced energy. Studies show that approximately one-third of patients with cognitive impairment (CI) also have depression [4, 5]. Among CI domains, those most associated with MDD include attention, memory and learning, executive function, and psychomotor processing speed. These deficits contribute to

feelings of helplessness and worthlessness. Even after mood improves, cognitive impairments often persist, affecting daily functioning and increasing the risk of depressive relapse [6, 7], potentially progressing to treatment-resistant depression. Numerous studies indicate a positive correlation between a history of depression and increased risk of developing dementia.

Cognitive decline runs throughout the course of depression and often precedes emotional symptoms [8]. Some researchers have even suggested olfactory dysfunction as an early diagnostic marker for depression [9]. One study on cognitive impairment [10] found that MDD patients exhibited greater neurocognitive deficits compared to non-depressed controls, though the underlying mechanisms remain unclear. With recent advances in depression research, the neuroplasticity hypothesis has gradually replaced the monoamine receptor theory as the central focus, possibly explaining why mood disorders like depression lead to cognitive deficits.

Modern research indicates that co-occurring cognitive impairment and depression (e.g., Alzheimer's disease with comorbid depression) are common and mutually reinforcing, creating a vicious cycle. Shared neurobiological mechanisms include neurotransmitter imbalances (serotonin, norepinephrine), hypothalamic-pituitary-adrenal (HPA) axis dysregulation, neuroinflammation, and oxidative stress. Many TCM therapies aimed at "regulating Qi" have been shown to modulate neurotransmitters, improve cerebral blood flow, exert anti-inflammatory and antioxidant effects, and protect neurons—providing a solid biological basis for the "restoration of mental function."

Guided by the philosophy of "Qi monism" and the holistic view of TCM, treating cognitive impairment with depression through "regulating Qi and restoring mental function" holds profound theoretical necessity and clinical value. This approach reflects TCM's ability to integrate complex pathologies and resonates with modern psychosomatic medicine concepts such as the brain-gut axis and the neuroendocrine-immune network. Under the framework of Qi monism, cognitive impairment and depressive states represent two aspects of mental dysfunction caused by disrupted Qi dynamics. Therefore, treating from the integrated and fundamental perspective of "regulating Qi and restoring spirit" not only follows the internal logic of classical TCM theories—allowing identification of the core pathological mechanism behind complex symptoms—but also aligns with the holistic principles of modern medicine, providing a unified comprehensive intervention strategy encompassing principle, method, formula, and treatment. This approach is not only necessary but also highlights the unique advantages and profound wisdom of TCM in managing complex psychosomatic disorders.

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