

ACADEMIC VIEWPOINTS

Historical Perspectives

First of all, the academic position of collateral disease theory should be evaluated from its historical development. Collateral disease theory was developed along with the channel theory. Channel theory attracted attention and high praise of generations of physicians from the very beginning. For example, the *Ling Shu-Jing Mai* (Chapter 10 of the *Miraculous Pivot*) records that “channels have to be unblocked because they can decide life or death and regulate deficiency or excess”. Also, the earliest bibliographical literature in China (*Han Shu-Yi Wen Zhi*, which was completed in the Han Dynasty) records that “channels connect the blood vessels, collaterals, bone marrow, yin and yang, and exterior and interior, therefore they are extremely important for human health”. The collaterals refer to the network system of divergent branches from the channels which are distributed over the entire body. They act to spread qi and blood that linearly circulates in the channels to the *zang-fu* organs and tissues, to maintain the vital activities of the human body, and to stabilize the internal environment. The theoretical cores of the TCM academic system are *zang-fu* organs, channels and collaterals, and qi and blood. The physiological actions of qi and blood are warming, nourishing, supplying blood and qi, interchanging fluids and blood, and also controlling metabolic processes. Yin collaterals are organic parts of the corresponding *zang-fu* organs, and the *zang-fu* organs function and connect with other organs, also connecting with the exterior of the body through the yin collaterals.

Collateral disease theory has experienced three milestones in its developmental history. First, it originated from the *Nei Jing* in the Xian Qin era (before 221 BC). Second, its clinical treatment is based on the *Shang Han Za Bing Lun* by Zhang Zhong-jing from the Eastern Han Dynasty, whose “syndrome differentiation of six channels” has become the main principle for the treatment of externally contracted

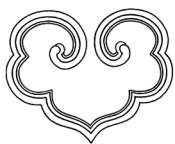
diseases. In addition, he also suggested treating internal diseases from the collaterals, and so created famous formulas for collateral disease such as *Xuan Fu Hua Tang* (Inula Decoction), *Da Huang Zhe Chong Wan* (Rhubarb and Eupolyphaga seu Steleophaga Pill) and *Bie Jia Jian Wan* (Turtle Shell Decocted Pill). So his syndrome differentiation and treatment of collateral disease for internal diseases should share equal academic value with his syndrome differentiation of six channels.

Yu Jia-yan from the Qing Dynasty mentioned in the *Yi Men Fa Lu-Luo Mai Lun* (*Principles and Prohibitions for the Medical Profession on Collaterals and Vessels*) that “the 12 regular channels have been discussed in detail by ancient physicians, however the collaterals have not”.

Third, Ye Tian-shi fully agreed with Zhang Zhong-jing’s treatment of collateral disease and put forward the time-honored concepts that “chronic disease may eventually enter the collaterals” and “chronic pain may eventually enter the collaterals”. This symbolizes that collateral disease theory has become an important part of TCM pathogenesis theory. Ye Tian-shi also criticized the phenomenon that “physicians are not aware of the treatment method according to the collaterals, and therefore they cannot get satisfactory results” (Quoted from *Lin Zhen Zhi Nan Yi An-Zheng Jia: A Guide to Clinical Practice with Medical Records on Masses*). Consequently, it is not only a key issue in TCM academic development but also a historical inevitability to develop collateral disease theory and establish a systematic syndrome differentiation and treatment system as well as the separate discipline of Collateral Disease Theory in Practice.

The Clinical Significance of Collateral Disease Theory

Collateral disease theory is an applied theory of clinical treatment for miscellaneous internal



and intractable diseases. A new breakthrough may occur for the treatment of chronic and recurrent intractable disease with the development of treatment formulas on the basis of onset characteristics, pathological changes, and clinical manifestations of collateral disease. Although it falls into the category of natural science, TCM is also significantly characterized by the humanities. Its theories of holism, harmony between body and mind, and the correspondence between man (microcosm) and environment (macrocosm) reveal the merging of science and the humanities. In summary, collateral disease theory inherited the essential characteristics of TCM combined with the up-to-date advancements of modern science on how to understand the processes of life and disease. With further study and extensive application of clinical subspecialties, collateral disease theory will definitely boost clinical efficacy in the treatment of many intractable diseases.

Collaboration with Modern Medicine

Since collateral disease closely relates to collaterals, it is easy to locate the collaboration point with Western medicine in the study of intractable disease. The unique theory and novel effective

means for the treatment of intractable disease may arise from study of their pathological processes and treatment principles. Furthermore, the internal relationship between collateral disease and modern intractable diseases should be clarified through studying the action mechanism of newly developed patent preparations. For example, by combining collateral disease theories on qi and blood with the latest advances in vasculopathy in modern medicine, a new concept of vessel collateral-vascular system disease arises from the pre-clinical study of treatment and prevention of vasculopathy with collateral disease theory. In addition, by combining the concept of collateral-qi stagnation (or collateral-qi deficiency and stagnation) with the concept of neuroendocrine dysfunction, and functional disturbances of the blood vessel endothelium, the effect of the qi collateral-NEI (neuro-endocrine-immunity) network on the occurrence and development of vessel collateral-vascular system disease can be discovered. With that, a completely new academic research area for cardio-cerebrovascular disease can be initiated using collateral disease theory to elaborate the action route, action links, and action targets of formulas that can unblock the collaterals.

SCIENTIFIC PERSPECTIVES

Collateral Disease Theory as an Independent Discipline

Before studying the scientific value of collateral disease theory, Collateral Disease Theory in Practice needs to be confirmed as an independent discipline. The concept of a specific discipline refers to all branches of science that contain specialized knowledge in certain research areas. In summary, a discipline contains elements such as a scientific branch of academic value and theory, research areas, professionals, and facilities. In 2004, the research project “Collateral Disease Theory and Its Exploratory Development”, sponsored by the State

Administration of Traditional Chinese Medicine, was completed by national TCM experts, integrative Chinese and Western medical experts, and Western medicine experts. The project was evaluated as determined to be an “innovative research achievement” because of its systemic study on collateral disease theory according to the TCM academic development law, of its preliminary establishment of “syndrome differentiation and treatment system on collateral disease” and of its systemic collateral disease theory for the first time as well as its theoretical foundation for Collateral Disease Theory in Practice. After that, a monograph on collateral disease theory and its clinical application