

The Concept of Wind in Traditional Chinese Medicine

Mehrab Dashtdar^{1*}, Mohammad Reza Dashtdar², Babak Dashtdar³, Karima Kardi⁴,
Mohammad khabaz Shirazi⁵

¹Department of Integrative Medicine, Dubai Specialized Medical Center & Medical Research Laboratory, Dubai Medical College and Dubai Pharmacy College, Dubai, United Arab Emirates

²Emergency Department, International Modern Hospital, Dubai, United Arab Emirates

³Resident of Orthopedics at Shiraz University of Medical Sciences, Shiraz, Iran

⁴Dubai Specialized Medical Center & Medical Research Laboratory, Dubai, United Arab Emirates

⁵Shiraz University of Medical Science, Shiraz, Iran

Key Words

acupuncture, devil wind, Feng Xie, pernicious influence, traditional Chinese medicine

Abstract

The use of folk medicine has been widely embraced in many developed countries under the name of traditional, complementary and alternative medicine (TCAM) and is now becoming the mainstream in the UK and the rest of Europe, as well as in North America and Australia. Diversity, easy accessibility, broad continuity, relatively low cost, base levels of technological inputs, fewer side effects, and growing economic importance are some of the positive features of folk medicine. In this framework, a critical need exists to introduce the practice of folk medicine into public healthcare if the goal of reformed access to healthcare facilities is to be achieved. The amount of information available to public health practitioners about traditional medicine concepts and the utilization of that information are inadequate and pose many problems for the delivery of primary healthcare globally. Different societies have evolved various forms of indigenous perceptions that are captured under the broad concept of folk medicine, e.g., Persian, Chinese, Grecian, and African folk medicines, which explain the lack of universally accepted definitions of terms. Thus, the exchange of information on the diverse forms of folk medicine needs to be fa-

cilitated. Various concepts of Wind are found in books on traditional medicine, and many of those go beyond the boundaries established in old manuscripts and are not easily understood. This study intends to provide information, context, and guidance for the collection of all important information on the different concepts of Wind and for their simplification. This new vision for understanding earlier Chinese medicine will benefit public health specialists, traditional and complementary medicine practitioners, and those who are interested in historical medicine by providing a theoretical basis for the traditional medicines and the acupuncture that is used to eliminate Wind in order to treat various diseases.

1. Introduction

Our ancestors knew that human beings, like plants, seeds, and other living things in the universe, were immersed in an evolutionary cycle. Thus, since the beginning of civilization, our ancestors have turned their gaze to the sky for answers and found that certain astronomical cycles overlap each other, just like the seasons, day and night, migratory movements of animals, etc., so they used these celestial cycles as the background for deciding, among other things, the times that were more conducive to hunting, planting, and harvesting. The term 'climate' in traditional Chinese medicine (TCM), from the point of view of Chinese medicine, refers to agents that cause disease; TCM believes that man is a reflection upon the universe, like

Received: Aug 14, 2016 Reviewed: Sep 15, 2016 Accepted: Sep 26, 2016

This is an Open-Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

This paper meets the requirements of KS X ISO 9706, ISO 9706-1994 and ANSI/NISO Z39.48-1992 (Permanence of Paper).

*Corresponding Author

Mehrab Dashtdar, Department of Integrative Medicine, Dubai Specialized Medical Center & Medical Research Laboratory, affiliated with Dubai Medical College and Dubai Pharmacy College, Dubai, United Arab Emirates.
Tel: +97-1426-4612 Fax: +97-1426-46025
E-mail: dr.mehrab@gmail.com

the existence of a microcosm within the macrocosm [1].

The same climatic energies that are outside are found inside. Each of these climate forces has a specific action on the body, depending upon their characteristics. Hence humans must follow the laws of the Universe to accomplish harmony and total health. TCM uses a unique terminology to diagnose and treat a wide range of health problems. Patients or modern practitioners who are not familiar with Chinese medicine have a look of concern or smile in a humoring manner when an acupuncturist or herbalist tells them they are suffering from a devil Wind Strike, stagnation of liver Qi, or blood deficiency; they often erroneously assume that something is physically wrong with their liver or blood. The theory of Chinese medicine uses the names of the organs to help illustrate related patterns of physical and psychological problems. When a traditional Chinese doctor diagnoses a patient with a "liver" problem, from a historic Chinese medicine perspective, the doctor is usually talking about a problem with the "hepatic system". This system involves the physical liver, acupuncture meridian liver-related disharmonies (or patterns), and liver diseases (Western medicine) such as hepatitis and cirrhosis. 'Wind' is one of the most difficult terms for modern doctors to understand, particularly when they approach alternative medicine. TCM is a holistic medicine. It considers the human body as a whole and attributes disease to an imbalance between the different elements it considers. Not only is what happens within the body important, but what happens throughout the body and how that is manifested in response to external and environmental stimuli are also important. Thus, TCM treatments, rather than being aimed at healing a particular symptom, focus on restoring the body's balance, emphasizing the need to have a healthy, nutritious lifestyle, with plenty of relaxation and breathing exercises [2].

Wind is one of five climates that characterize the five seasons according to a Chinese philosophical principle. Heat occurs in summer, Humidity in late summer, Drought in autumn, and Cold Wind in winter and spring. While Wind is present in all seasons, its manifestation will be stronger in the season that matches it. Wind in the body resembles the wind in nature; thus, it generates both movement and movement in what would otherwise remain motionless. It produces change and acceleration in what otherwise would be steady and slow and causes things to appear and disappear quickly. Wind is considered as the backbone of many diseases in TCM. It affects the body in the same way as moving branches and leaves on a tree affect the tree; consequently, Wind is a Yang phenomenon. When Feng Xie, or Wind nefarious, attacks the body by penetrating the skin and the pores, an important result in TCM is the emergence of imbalances of external origin caused by climatic aggression pathogenic factors. Wind is associated with spring, but a disharmony characterized by Wind can occur in any season. Feng Xie is a corrupting influence that rarely appears alone, usually being accompanied by some other external pernicious influence, such as cold and damp weather. The presence of a nefarious Wind even helps other influences to invade the body. The Huangdi Neijing says, "Diseases develop from Wind". Wind that is directed toward the upper body has a pernicious influence

on Yang. Because Wind is "light and airy", the Huangdi Neijing says, "The damage inflicted by Wind affects primarily the top". Wind is thought to be initially manifested in the highest parts of, and more outside, the body, especially the face, skin and sweat glands, and lungs. When the body is invaded from outside, its defensive capabilities are weakened, causing a mismatch in the opening and the closing of the pores in the entire body, leading to the invasion of other pathogenic factors causing diseases with symptoms such as headaches, nasal obstruction, painful and itching throat, facial edema, abnormal aversion to wind, and perspiration.

Cold Wind is an aversion to wind and chill and is accompanied by fever, headaches and generalized aches, a runny nose, and a cough. Hot Wind is accompanied by fever, sweating, headaches, red eyes, sore throat, photosensitivity, thirst, a cough with yellow and dense sputum, respiratory problems, constipation, and epistaxis. Damp Wind has effects similar to those of the common cold, with sore limbs, listlessness, nausea, anorexia, and diarrhea and can cause diseases like arthritis. An Endogenous Wind attacks the liver and causes dizziness, spasms, convulsions and even coma. As Wind is associated with movement, its attack is varied and fast and is often recognized by signs like pain that moves from one place to another, itching or rashes that change location, spasms, tremors, tics, and lightheadedness. Generally, these symptoms such as migratory pains are acute and temporary [3]. Huangdi Neijing says, "Wind is adept at movement and frequent changes".

Feng Xie is often associated with Cold, Humidity, Dryness and Heat, forming complex pathogenic factors such as Wind-Cold, Wind-Humidity, Wind-Dryness and Wind-Heat. Wind can also be associated with Phlegm, thus producing Wind-Phlegm. A characteristic of Winds as harmful exterior influences is the speed with which that characteristic appears, as is the case with all other external pernicious influences. Winds often include a fever, which is a sign of conflict between an exterior influence and normal Qi, sweating, sudden headaches, nasal obstruction, itching, and throat irritation. As Wind is typically accompanied by another harmful influence, it contains the signs of the other baneful influence. The inner Feng Xie generally accompanies chronic disharmonies, and often these disharmonies involve the liver, which is responsible for regular movement within the body and, therefore, are sensitive to irregular movement. This condition is described as Ominous Wind. Signs of Unpromising Wind include dizziness, ringing in the ears, heaviness or numbness of the limbs, tremors, and seizures [4].

Heavenly stems and earthly branches are collectively known as Stem-Branch or Gan-Zhi. The 10 heavenly stems are Jia, Yi, Bing, Ding, Wu, Ji, Geng, Xin, Ren and Gui. The 12 earthly branches are Zi, Chou, Yin, Mao, Chen, Si, Wu, Wei, Shen, You, Xu and Hai. Each heavenly stem is paired with an earthly branch to form the Gan-Zhi sexagenary cycle that starts with Jia-Zi.

The denominating 'Six Excesses' (Wind, Cold, Heat, Dryness, Moisture, and Heat of Summer) originated thousands of years ago and may sound primitive and unscientific, but are precisely associated with many diseases and disorders and with how they behave in the body (Table

1). For example, in nature, Wind often breaks out quickly without warning, coming and going. Similarly, the symptoms of Winds in the body are often characterized by coming and going, sometimes suddenly. Have you ever had a sudden headache that is passed as mysterious as to why it appeared? That was a Wind attack. If during the headache, you were red-faced, sweating, and hot, those symptoms indicate that the condition was caused by a Wind-Heat.

Wind is one of the six external factors of disease (six Qi or six Yin/Six Excesses). These climates can attack the body, enter the meridians, and cause external diseases; e.g., Cold Wind can cause a cold. Wind is a climatic condition that is observed everywhere, but is given a heightened importance in TCM. A healthy body is the result of a balance between Yin and Yang and is supported by a network of activities and complementary forces that generate and put limits on one another. Thus, Qi moves the Blood, but at the same time keeps it in place; Heart stores the Shen (Spirit) and moves the Blood; Gallbladder regulates the ascension; Stomach regulates the descent; Liver controls distribution and Kidneys regulate storage; Lungs regulate the flow of Qi descent; Kidney Qi governs fixation. An energy imbalance occurs as a result of breakage of the relationship between real power and pathogenic power (Zheng Qi - Xie Qi). This is a dialectical pathogenesis in TCM. When the balance is disturbed, the Yin and the Yang no longer fit, and the body becomes vulnerable to the damaging effects of a pernicious influence. For TCM, the root of most diseases is a serious imbalance of the various energy systems of the body organs and the lack of overall functional harmony of the entire structure, which occur unfailingly when an organic imbalance exists.

The human body has the capacity to resist different pathogenic factors and to maintain a relative balance inside the body and between it and the outside world. This ability to resist is called Zheng Qi. Zheng Qi (true power) is the ability of the body to resist pathogens. It is a term of TCM that is preserved in the kidneys, is inspired by nature, and comes from consumed water and rice. It is the quintessence of action and the ability to maintain the physiological functions of the tissues and the organs throughout the body. Keep in mind that Zheng Qi, real power, is the sum of energy inherited and acquired. In pathogenesis, TCM pays attention to physical functions, believing that if a person is full of positive force, a malicious energy will not attack [5]. Xie Qi or malicious energy is another term used in TCM and refers broadly to all pathogenic factors. The appearance of disease results from a struggle between these two factors, Zhengqi - Xie Qi. Zheng Qi - Xie Qi has no resistance, so the natural balance between Yin and Yang in the body is lost. The factors that tend to break this relative equilibrium are called Xie Qi or pernicious Influences. If the Zheng Qi is strong because the person has inherited a proper Zheng Qi, good contributions provided later by nutrition and breathing are maintained, and no emotional disturbances and no environmental and traumatic assault occur. A Xie-Qi single attack or unbalance occurs in extreme circumstances and is an extreme response. The body will always be positive even with acute symptoms such as fever, headache, and erratic pain. When the Xie-Qi factor reaches the interior, overcoming the various levels of defense, it affects

the viscera and the bowels, causing an imbalanced Yin-Yang, and can attack the normal functions of rising and falling Qi, organic liquids, and Blood. If Zheng Qi is weak, Xie Qi will always be present, causing a person to be sickly, with a latent and prolonged aspect, the signs of which may appear as weakness, asthenia, chills, and clinical chronic conditions that are exacerbated by any factor affecting the body, whether dietary, emotional or climatologic [6]. A malicious power vacuum leads to infiltration, and the sky and the earth remain closed and dark. Mists and clouds cannot rise, and rain will not fall. The above and below may not communicate, "Huangdi Neijing".

The conflict between Zheng Qi and Xie Qi can be outlined as follows: Normality when Zheng Qi is stronger than Xie Qi, Fullness when Zheng Qi is durable and is equal to or slightly less than Xie Zheng, Empty when Zheng Qi is weak but less weak than Xie Qi, Chronicity when Xi - Qi is weak but less than Zheng Qi, Gravity when Zheng Qi is real and much lower than Xie Qi.

2. Pernicious influence factor pathogens

When the body is weakened by an imbalance of Yin and Yang, a weather phenomenon can invade and become a destructive influence. A harmful influence is a natural event that becomes destructive only when the body has an inappropriate relationship with that influence in this state; the body is subjected to a conflict between the injurious influence and Normal Qi. The pernicious influence first invades the Qi Protector. If the Qi Protector is durable, the destructive influence is expelled, and the person recovers. However, if the Qi is weak or the pernicious influence is very strong, an imbalance develops and penetrates deeper, engaging the internal organs more. The imbalances generated by some of the pernicious influences that invade the body are produced suddenly and are characterized by an aversion to the specific influence that generated those imbalances, for example, fear of cold, aversion to wind, fever, chills, body aches and malaise. These symptoms are the result of an attempt to shed the influence that is affecting Normal Qi and the Qi Protector. When a hurtful influence invades the body in this way from the outside, it is called an external pernicious influence [7].

3. Reason pernicious influence factor pathogens are called evils?

In ancient China, people were very concerned with "Wind". At that time, people believed that the world was full of benevolent spirits and evil spirits, both of which affected human events. If a person became ill, especially with a sudden onset, that illness may have been attributed to an evil spirit that had entered the person's body. For example, if someone had a stroke or heart attack, an unexpected or severe pain, or loss of consciousness or motor abilities or had died, an evil spirit was thought to have possessed the person's body. In Africa and the Middle East, "zār" is used as a term for malevolent spirits or demons that are

Table 1 Influences of Wind on the internal and the external organs and its effects on Qi

Wind Direction	Name of Wind	Generated in	Internally Affects	Externally Affects	Its Qi Causes	Heavenly stems*
South	Great Feathery Wind	Summer	Heart	Channels	Heat	C & D (Bing, Ding)
Southwest	Scheming Wind	Late Summer	Spleen	Muscles	Weakness	E & F (Wu, Ji)
West	Hard Wind	Autumn	Lungs	Skin	Dryness	G & H (Geng, Xin)
Northwest	Breaking Wind	Beginning of Winter	Small intestine	Arm's major yang channel	Blockage in channel	—
North	Great Hard Wind	Winter	Kidneys	Bones, shoulders, back muscles	Coldness	I & J (Ren, Gui)
Northeast	Ferocious Wind	Beginning of Spring	Large intestine	Sides of ribs, armpits, lower bones, limb joints	Not reported	—
East	Infant's Wind	Spring	Liver	Thick muscles	Dampness	A & B (Jia, Yi)
Southeast	Feathery Wind	Beginning of Summer	Stomach	Muscles, flesh	Body weight	—

Table 2 Relations between the five seasons and the 5 elements and the 5 influence devils

Evil	Element	Season
Wind	Wood	Spring
Cold	Water	Winter
Summer-Heat	Fire	Summer
Dampness	Earth	Late Summer
Dryness	Metal	Autumn

thought to possess individuals, mostly women, and cause discomfort or illness [8]. The superstitious belief that demons travelled with the wind led to the use of words like "Evil Wind Stroke", and this explanation for the causes of disease has continued to the present. Diseases caused by Erratic Wind, which are predominant in the spring, exist throughout the year.

Leprosy is the best example for illustrating the ambiguity of the epistemological status of contagion in the middle Ages. At that time, leprosy was considered to be a disease of the soul, the consequence of sin and divine punishment [9]. When classifying different types of infection diseases, Avicenna in the Canon says, "pass from one to another" and mentions that leprosy, scabies, smallpox, pestilential fevers and some eye diseases are transmitted by Wind [10]. Leprosy is a chronic infectious disease that mainly affects the skin and peripheral nerves; severe cases can involve deep tissue and visceral organs. Although leprosy rarely causes death, it can lead to physical disability and deformity, so that patients are lost to the labor force. Leprosy can

occur at any age, and both men and women may be affected [11]. In explanation of leprosy, TCM uses many terms such as Apathetic Wind (Ma Feng) and Releasing the Wind (Fang Feng), scabies Gale, Wind scabies, Wind in Blood, also known as Harsh Wind, and Pandora Wind/Pandora's ulcers. All above terms are associated with the release of all the evils of humanity into the world, just like Pandora opened her box. Pandora Wind is a toxic Pathogenic Wind that causes apathetic feeling of chronic skin diseases. Releasing the Wind is followed by sickness, fatigue, madness, leprosy and plague, sorrow, poverty, and crime; all the world's ills are spreading through the land. We often use the phrase "open Pandora's box" when we mean that any of the acts we perform in life will bring us new evils and unknown misfortunes [12]. From Antiquity to the Renaissance, physicians explained the mechanisms for the spread of disease on the basis of direct contact with poison or mediation of the foul air between a sick agent and a healthy patient. As the medical ideas moved away from devil-caused diseases to nature-caused diseases, Wind became the first and most important of exterior causes. The concept soon developed into the six Qi and six Yin [13], and Wind became specifically associated with the spring season, even though spring is definitely not the season in which there is more wind, as we imagine wind today.

An Exogenous Wind comes from nature. The exposure of a person to the wind after perspiring or sleeping in a place with drafts promotes the development of Wind syndromes. Wind generates Humidity, Dryness and sometimes Heat, which invade the body as a result of Wind. By its nature, Wind is a pathogen of the Yang type. Its direction is upward; thus, it affects the upper body (face and head) and the body's surface, causing a mismatch between the

openings and the closings of the pores of the skin. Clinical manifestations of Wind include fever, aversion to cold, headache, sore throat, sweating, feeling of hyperthermia, cough, rhinal obstruction, rhinorrhea, nasal pruritus, a tongue with a thin white coating, and a floating or moderate pulse. Wind invades the body from the outside, and defensive Qi loses its ability to protect the body against foreign pathogens. In this initial struggle, manifestations of the openings of the pores of the skin and attempted expulsions of external pathogens are observed. Thus, the patient is seen to be sweating, with the temperature of the body beginning to rise, and to have both an aversion to cold and a headache. Wind has constant movement. Wind is flowing and changing, so it does not have a fixed effect. That is to say, the location of Wind changes, thus, for example, causing pain in various joints. Likewise, Wind causes movement disorders, such as dizziness, tremors, muscle spasms, convulsions, a stiff neck, and facial paralysis. As Wind's attack is fast, diseases can change abruptly, with symptoms sometimes appearing and disappearing rapidly. For example, conditions such as hives or itching can suddenly appear and then suddenly disappear, and rheumatism can migrate from one joint to another.

Pathogenic Wind is the leading pathogen causing all diseases. Wind has the most influence among the six exogenic factors. It is the first agent of the exogenic pathogenic factors to cause disease. Other morbid factors mostly attach themselves to Wind to invade the human body, as in Wind-Cold syndrome, Wind-Heat syndrome, and Wind-Dampness syndrome [14]. The influences of the six Evils on everyone are different. In fact, healthy persons are not unfavorably affected by any of them. An "Evil-Excess" will attack the body only when the defense system is weak, and the protective Qi is deficient somewhere along the surface of the body. One of the aims of preventive medicine is to keep the body invulnerable to such attacks from outside the body. Diseases of the six Evils are most likely to appear under abnormal weather conditions when the body is prepared for the powers of the present season but is suddenly faced with an opposite force. Sudden Cold emerges in the mid-summer and, for example, often causes epidemics of grippe. Correspondingly, people who go from a cool, dry place to a warm, damp place are more likely to be exposed to an invasion by local meteorological excesses than natives of the region. Because, plague was a major problem during ancient times, practitioners of TCM learned about it long ago and blamed it on pestilential Evils. A deadly Evil is a kind of pathogenic factor with intense infectivity.

Attacks of pestilential Evils are usually related to bizarre climates, such as droughts, floods, and extreme heat, as well as environmental conditions such as pollution. Epidemics occur abruptly, with the victims having severe symptoms and the disease being highly contagious. Epidemics are affiliated with a season or working environment. For example, Wind diseases occur in spring, Summer-Heat diseases in summer, Clammy diseases in late summer and early autumn, Dry diseases in autumn, and Cold diseases in winter. In addition, people who live for a long time in a humid environment tend to be easily attacked by the Humid Evil, and those who work extensively in a high-temperature environment are freely attacked by the Dry-Heat

Evil or Fire Evil. Evils can work alone or in groups of two or more in attacking the body; syndromes such as the common cold (Wind-Cold type), Damp-Heat diarrhea, and Wind-Cold-Damp blockage are examples of medical problems caused by a unification of Evils. During the early stages of a disease, any one of the six Evils can influence the others and can transform into another kind of evil under particular conditions. For example, the Cold Evil that enters the body can be transformed into the Heat Evil, and the prolonged Summer-Heat with Dampness Evil can be transformed into the Dryness Evil. The six climatic Evils penetrate the body and cause disease, mostly through the spaces located between the skin and the muscles or through openings such as the nose and the mouth. For this reason, they are also named the "six Exogenous or External Evils". According to Chinese philosophy, Wind is one of five climates that represent the five seasons [15, 16] (Table 2).

External Wind and Internal Wind are two pathological Winds. External Wind comes from outside, enters the body through the acupuncture meridians, and causes what are known as colds, flu, and virus. Wind is said to be the spearhead as it promotes the opening of the pores and the penetration of other "Evil" climates such as Heat, Cold, and Humidity. Summer will be more conducive to Heat-Wind penetration, causing sunstroke or heatstroke. Winter will be more conducive to Cold Wind penetration (colds, flu), and spring is typically associated with allergic rhinitis. The harmful action of Wind penetrates into the muscle layers in the Meridians of the Triple Burner and the Small Intestine, which blocks the normal flow of Qi, causing muscle stiffness [17]. Cases of occasionally or permanently weakened defensive energy or immunity are associated with insomnia or overeating, leading to an attack of an external pathological Wind in unregulated seasons. In other words, our bodies follow the rhythm of the energies of the seasons and do not have the ability to adapt to changes. The following is a summary of some key points:

- Allopathic practitioners who begin to study TCM are surprised to hear about Wind, Heat, Humidity, Dryness, and Cold. What we call climates in TCM are agents that cause disease. TCM believes that man is a reflection of the universe, a microcosm within the macrocosm. The same climatic energies that are on the outside are found inside. Each of these climate forcers has a specific action in the body, depending on their characteristics. "Wind is the origin of the one hundred diseases. In case a person is clear and calm, the flesh and the interstice structures are firmly closed up and resist. Even though there is a strong wind which is a violent poison, it will be unable to harm that person. This is so because one follows the sequence of the seasons" [18].
- Diseases involving excess movement of the body are epilepsy (rare convulsions) and Parkinson's disease,
- Diseases involving symptoms appearing in various parts of the body at different times are early stage rheumatism involving differing joints or skin rashes that appear in multiple places.
- Diseases involving loss of movement are stroke, paralysis, tetany, and coma.
- Various kinds of pain and numbness, as well as spastic syndromes, are sometimes referred to as bi syndromes and

Table 3 Herbs with actions that dispel wind

Herbals Name	Chinese name	Indications	Actions
Hydnocarpus wightianus	大风子 (Da Feng Zi)	Skin diseases, leprosy, scabies	Dispels Wind, eliminates toxic material
Flos Chrysanthemi	菊花 (Ju Hua)	For Wind-Heat syndromes with fever, headaches, and red, painful, dry eyes	Releases Wind and Heat, clears Heat in the Liver Channel
Herba Solidaginis	一枝黄花 (Yi Zhi Huang Hua)	A sore throat, traumatic injury, jaundice, cold headache, whooping cough, infantile convulsion, a fungal infection of the hand, carbuncles, swelling on the back	Dispels Wind and clears Heat, resolves swelling and removes toxicity
Nepeta	荆芥 (Jing Jie)	Cold and fever, a headache, itching eye, a cough and sore throat, rubella, measles, hives, carbuncles, scabies, epistaxis, stool with blood, postpartum bleeding	Treats and dispels Evil Wind and clears Heat
Siler root or ledebouriella	防风 (Fang Feng)	Common cold due to Wind-Cold, headache, generalized aching, arthralgia due to the Wind, Cold, and Dampness, ostealgia, limbic spasms	Dispels Wind, resolves surface, removes Dampness, relieves convulsions
Cinnamon	肉桂 (Rougui)	Anti-inflammatory, antioxidant, antimicrobial activities	Induces sweating and releases exterior, warms and unblocks the meridians, warms and reinforces the Yang Qi
Acanthopanax	五加皮 (Wujiapi)	Rheumatism, strong bones, pain treatment, bruises and bone fractures, edema beriberi, vaginitis	Removes Wind and Dampness, augmenting kidney and liver, activates Blood
Mulberry	桑枝 (Sang Zhi)	Hemiplegia, edema, beriberi, joint pain, limb spasms	Removes Wind and Dampness
Impatiens glandulifera	凤仙花 (Feng Xian Hua)	Pain management, whooping cough, vomiting, hemoptysis, onychomycosis, ringworm, rheumatism arthralgia	Removes Wind and Dampness, activates Blood, anti-allergic, antibacterial, antifungal agent

include a headache, a toothache, limb numbness, tendon spasms, arthritis, and deep bone pain.

- Diseases that are acute are the common cold, influenza, a sinus infection, a skin eruption, a sore throat, a cough, and eye disorders.
- Diseases that affect the surface of the body (skin or flesh, rather than viscera) are chronic eczema, leprosy, scrofula, and hair loss.

4. Zhong Feng (Wind Strike)

In Western medicine, acute cerebrovascular disease refers to a non-traumatic serious cerebral blood supply disorder caused by focal neurological damage. In TCM, Zhong Feng terms is refers to human body targeted (struck) by an external pathogenic wind and internal wind. 'Zhong' refers to a sudden onset of this condition because the character Zhong conveys the idea of an arrow hitting its target. A Wind Strike in Chinese medicine corresponds to all of the following medical conditions in Western medicine: brain hemorrhage, cerebral thrombosis and vessel spasm. The incidence of cerebrovascular disease is significantly higher in winter. Clinical characteristics of cerebrovascular

disease are a sudden onset and rapid progress. In TCM, this is a type of Bi-syndrome. A vicious Wind, Chill, Wet or Heat invasion of the body leads to a blockage of the meridians. Working or living in a chilled and damp environment, walking in the rain, working long-term underwater, or drastic changes in climate are other reasons that Wind-Cold-Dampness Evil invades the body and causes disease. Inner Wind is due to internal injuries. It is a common problem of old age because deficiencies of Yin naturally develop with aging, giving rise to liver Yang agitation, which can produce Interior Wind. Facial paralysis after a stroke is due to Internal Wind while Bell's palsy is attributable to External Wind [19]. Wind Strike can be summarized in four words: Wind-Phlegm-Fire-Stasis. All of these may or may not be present, but at least three of them must be present to produce Blowing Wind. They can also be present to different degrees of intensity, which can give rise to many various kinds of Wind Strikes. Wind causes the sudden loss of self-awareness of an acute attack, i.e., Wind Strike and its subsequent hemiplegia. Phlegm contributes to unexpected loss of consciousness. In the meridians, Phlegm causes numbness or tingling of the extremities. When holes are clogged, Phlegm causes aphasia or slurred speech. When fire damages the Yin, subsequent Yin fails

Table 4 Wind-dispelling acupuncture points

Point Name	Interpretation of Point Name	Functions and Uses of the Acupuncture Point
Feng Chi (风池, GB-20)	Feng, pathogenic wind; Chi, depression like a pool. It is an important point in eliminating pathogenic Wind. Wind pathogens are said to collect in this depression, and the point is used in the treatment of Wind diseases.	One of the major points for Wind (external and internal). It dispels Wind and clears Heat, extinguishes internal Wind, benefits hearing and vision (visual dizziness), subdues rising Liver Yang, clears the head and opens the orifices, harmonizes Qi and Blood. It is used for a headache, eye diseases (eyes red/painful, excessive lacrimation), nasosinusitis, neck stiffness and pain, pain in the shoulders and back, and pain of the lumbar spine.
Feng Shi (风市, GB-31)	Wind Market; Feng, pathogenic Wind; Shi, market. Market means gathering and dispersing. Wind Qi may gather in this area like people gathering at a market. This is an important point for removing pathogenic Wind.	Dispels Wind, relaxes the tendons, reinforces the lower back and knees, and regulates Qi and Blood. It is used for hemiplegia, genital itching, pain in the lower back and legs, Wei and Bi syndromes of lower limbs, foot swelling, sciatica, headache, leprosy.
Feng men (风门, BL-12)	Wind Gate; Feng, pathogenic wind; Men, door. This point can be used to treat exterior Wind patterns. The point is located where it is easily invaded by pathogenic Wind and so is useful in treating diseases caused by pathogenic Wind. This point is, therefore, considered as the door for pathogenic Wind.	Dispels wind, clears the exterior, diffuses and regulates the Lung Qi, transforms Phlegm. Moxibustion is used to enhance resistance to Wind-Cold attacks (namely, to enhance Wei Qi) and to prevent asthma attacks in cold asthma. It is used for respiratory disorders (common cold, bronchitis, asthma, pleurisy, pneumonia, and whooping cough), coughing, stiff neck, back pain, headache, nasal obstruction, shoulder pain, fever, jaundice, urticaria, and abscesses on the back, vomiting, heat sensations.
Yi Feng (翳风, SJ -17)	Yi, shielding; Feng, pathogenic Wind. The point is behind the earlobe and is the place for warding off the pathogenic Wind.	Benefits hearing and vision, soothes the ear (De Qi must go into the ear), disperses Wind and clears the channels. Its major point is to expel External Wind, the main point of facial paralysis. It is used for tinnitus, deafness, facial paralysis, swelling of the cheeks, trismus/lockjaw, mutism, scrofula, toothaches, sore eyes, blurred vision, and membrane over the eye, convulsions.
Bafeng (八风, EX-LE 10)	Eight Winds. Eight winds refer to the large nature of eight different Wind directions.	Reduces Heat and swelling, numbness, and pain of the foot. Mentioned in the Ling Shu for malaria.

to nourish the tendons and meridians, which occurring meridians malnutrition and hemiplegia. Blood Stasis affects the meridians and joints, causing stiffness and pain in the extremities; this is an observed consequence of Wind Strike. Naturally, it is a pathogenic factor listed in the Wind Blowing. In addition, some deficiencies of Qi, Blood or Yin, especially Yin Kidney and/or Yin Liver, are observed [20]. The etiology of Wind Strike is very complex. It occurs suddenly and has four main etiological factors:

1. Overwork: Working long hours under stressful conditions without adequate rest lead to Kidney Yin deficiency.
2. Powerful stress: A combination of overwork and stress factors is the most common cause of Kidney Yin deficiency in industrialized societies. Yin deficiency generally leads to kidney deficiency and elevation of Liver Yin and Yang. Liver Yang, especially in the elderly, often results in Liver Wind, and Liver Wind is a causative agent of stroke, coma, mental clouding, and paralysis. Internal Wind and External Wind can interact because the second can shape the first.

3. Eating irregularly or ingesting amounts of fat, dairy products, fatty foods, fried foods, and/or sugars weakens the Spleen and leads to Phlegm, which predisposes the body to obesity. Phlegm causes numbness in the extremities, mental clouding, slurred speech or aphasia, and a swollen tongue with a sticky coating. Extreme physical work, including excessive exercise and sports, also weakens the Spleen and can lead to Spleen deficiency, which, in turn, causes phlegm.

4. Excessive sexual activity in men combined with inadequate rest weakens the kidney and marrow essence, leading to a deficiency. Marrow fails to nourish the blood, and eventually this can lead to blood stasis. Blood stasis causes limb stiffness and pain. Extravagant physical activity and inadequate rest, such as lifting heavy objects or taking part in too many sports or excessive exercise, weakens the Spleen, muscles, and meridians. Spleen deficiency lead to a failure to produce sufficient blood, so Blood deficiency develops in the meridians. In Qi and blood deficiency, a preexisting Internal Wind penetrates the meridians. On

the other hand, exposure to external Wind interacts with internal Wind meridians, leading to paralysis of the limbs [21].

5. Tong Feng (painful Wind; white tiger arthritis) or gout

Gout is one of the most painful forms of arthritis and is due to hyperuricemia caused by the accumulation of monosodium-urate crystals. Drop is derived from gutta; drop in Latin, as in the middle Ages, was believed to be due to a drop of evil humor that someone had deposited in the joints. Gout is also called “rich man’s disease” because it occurs most often in the upper classes. In TCM, White Tiger joint disease is the ancient name for gout or disease of the toes. Gout, the so-called White Tiger disease, produces pain like that of a tiger gnawing on one’s toes. White Tiger joint disease, which is a Bi-syndrome, is a disorder resulting from obstruction of the meridians and sluggishness of Qi and Blood flow after an attack of pathogenic Wind, Cold, Dampness or Heat. It is characterized by pain; insensibility and heaviness of muscles, tendons and joints or edema; hotness with limitations on joint movement [22].

In TCM, gout is believed to be caused by excessive intake of fatty and sweet food, alcohol abuse, overstrain, tension, or contraction of Wind, Cold, Dampness and Heat, resulting in obstruction of the meridian Qi due to stagnation of Qi and Blood, as well as retention of Phlegm and Blood in the joints. The pathological changes are as follows: Pathogenic Wind-Heat coupled with Dampness creates a predisposition for the disease. In addition, predominance of Yang, hyperactivity of the Liver, and excessive intake of alcohol and food can all lead to retention of pathogenic Wind, Dampness and Heat, or pathogenic Wind, Phlegm and Heat in the meridians and joints, obstructing the flow of Qi and Blood and bringing about a bi-syndrome due to Wind, Dampness and Heat. Furthermore, pathogenic Wind-Cold combined with Dampness can invade the meridians and obstruct the flows of Qi and Blood, bringing about a bi-syndrome due to Wind, Dampness and Cold. If the bi-syndrome persists, the flows of Qi and Blood will become even more sluggish, giving rise to an obstinate adhesion of turbid Phlegm and Blood Stasis in the joints and meridians, which is marked by pricking pain, nodules, and even deformities of the joints. The prolonged lingering of pathogens will inevitably impair the healthy Qi, so a deficiency of Spleen Yang and Kidney Yang and fatigue or weakness often occur in the late stages of the disease due to unchecked discharge of essence [23].

6. Wind and cancer metastasis in traditional Chinese medicine

Cancer metastasis is the spread of cancer cells to tissues and organs beyond where the tumor originated, resulting in the formation of new tumors. The formation of metastases is a major problem in clinical oncology because it is one of the main causes of death in most cancer patients. Classical Chinese medicine has no specific concept of

cancer; however, experts in TCM are studying the causes and treatments of metastasis. TCM doctors believe the causes of cancer are multiple, including toxins and other environmental factors, called “external causes,” as well as “internal causes” such as Blood and Qi stagnation, emotional stress, bad eating habits, wastes accumulated from food, and damaged organs. They also believe that Internal Wind of hepatic origin is not only one of the causes of malignant tumors but also the main cause for the formation of metastases. An analysis of the causes of internal Wind in patients with malignant tumors suggests that removing Wind is the fundamental method of TCM for the treatment of patients with malignant tumors and metastases; thus, drugs that eliminate Wind are important prescriptions for treating patients with such tumors. Three main patterns appear in patients with cancer, which are Phlegm (Tan), Toxic Heat-Fire (Re-Huo) and Wind-Cold causing Qi stagnation and to which are attributed, from the Western viewpoint, the concepts of hyperplasia, neoplasia, and metastasis, respectively [24].

The pathogenesis of metastasis caused by pathogenic Wind is as follows: TCM holds that pathogen Wind is ranked as External Wind and Internal Wind, the first being the most important of the six climatic factors and the second being a pathological manifestation of a disturbance in Yang Qi. The Inner Wind that is due to a Yin and Yang imbalance is called “Internal Wind that rises in the Liver” and is characterized by change and movement. It is not as strong as external Wind and attacks internal organs only when they are weak, resulting in symptoms of internal involvement. Internal Wind originates in the Liver. Pathological changes in the Liver can propagate along the meridians and collaterals and attack other internal organs, which is the reason the Liver is considered in TCM to be the source of all diseases [25].

In TCM, tumors are believed to be the result of Zheng Qi failure, internal organ dysfunction, and pathogen accumulation in the meridians, collaterals, and internal organs, which can cause an imbalance between Yin and Yang, Qi Stasis, and Blood Stasis, the production of TAN, the accumulation of toxins and, eventually, the formation of a tumor. Tumor formation is accompanied by internal Wind, which, in turn, helps Liver Wind, leading to blood stasis, phlegm, and internal organ toxins, resulting in the formation of metastases in the lungs, liver, brain, lymphatic system, bone, or skin. Diseases caused by Wind are also characterized by a rapid onset and change, which explains why cancer patients are already in middle or an advanced stage of the disease when they receive the diagnosis. A small portion of patients with cancer in an early phase can quickly move to end-stage cancer with the formation of metastases in a short time. The imbalance of Qi, Blood, Yin, and Yang is the leading cause of metastasis. Stasis Qi, blood stasis, phlegm generation, and retention of toxins are the basic factors of metastasis while the movement of the Liver Inner Wind is the condition under which metastases are formed.

Drugs that eliminate Wind have an anti-cancer effect. In short, in the treatment of cancer, the practitioner needs to pay attention both to the pathogenesis of Liver internal Wind and to the origin of metastases produced by the Liv-

er Wind. Drugs that disperse Wind are an important part of treatments for cancer. According to studies in allopathic medicine, the success of cancer treatment depends on whether metastases can be controlled. For that reason, research both in the field of modern medicine and TCM is focused on finding effective methods for preventing and treating cancer and metastases, on providing new methods for preventing and treating metastases, and on establishing a theoretical basis for the application of drugs that eliminate Wind to treat cancer. Chinese medicine is useful in all stages of the disease to augment the benefits of conventional treatments, to prevent recurrence and metastasis in early stages of breast cancer, and to promote health, improve the quality of life and prolong life in advanced stages [26-38]. A study on human melanoma cells reported that treatment with essential oils induced deoxyribonucleic acid (DNA) damage in cancer cells, which is an indicator of apoptosis [39]. Modern pharmacological studies have shown that the following drugs eliminate Wind and have an anticancer effect [40-42]: Dang Gui (*Radix Angelicae Sinensis*), *Angelica pubescens* (Du Huo), *Bupleurum Chinese* (Chai Hu), *Pueraria lobata* (Ge Gen), *Vitex rotundifolia* (Ma Jing Zi), *arcticum Lappa* (Niu Bang Zi), *Stephania tetandra* (Fang Ji), *Aristolochia mollissima* (Xun Gu Feng), *Pinus tabulaeformis* (Song Jie), *Viscum coloratum* (Sang Ji Sheng), *Acanthopanax gracilistylus* (Wu Jia Pi), *Lagenaria Chaenomeles* (Mu Gua), *Erodium stephanianum* (Lao Guan Cao), *Chloranthus glaber* (Zhong Jie Feng), *Agkistrodon acutus* (Bai Hua She), *Scorpio* (Quan Xie), *Scolopendra* (Wu Gong), *Gekko japonicus* (Bi Hu), *Agkistrodon Halys* (Fu She), *Smilax glabra* (Tu Fu Ling), *Solanum lyratis* (Bai Ying), *Arisaema consanguineum* (Tian Nan Xing), *Acorus grass* (Shi Chang Pu), *Sophora flavescens* (Ku Shen), *Dictamnus dasycarpus* (Bai Xian Pi), *Polygonum multiflorum* (He Shou Wu), *Ligusticum chuanxiong* (Chuan Xiong), *Zanthoxylum nitidum* (Lian Mian Zhen), *Campsis grandiflora* (Ling Xiao Hua), dwarf musk deer (She Xiang), *Taurus domesticus* (Niu Huang), *Tribulus terrestris* (Bai Ji Li), *Pheretima aspergilum* (Di Long), *Paris polyphylla* (Chong Lou), *Amyda sinensis* (Bie Jia) and *Bombyx mori* (Bai Jian Can). Among compounds derived from plants, essential oils from aromatic plants have been reported to possess anticancer properties.

All TCM Practitioners should be very familiar with the herbs and acupuncture points related to treating patients with the conditions caused by Wind. Table 3 gives a partial listing of well-known herbs that are reputed to dispel Wind. The actions and the indication of the herbs are from the practical dictionary of Chinese medicine [43] with only those aspects that are directly or indirectly related to the concept of Wind included. The uses of Wind-dispelling herbs are various, but mainly include the treatment of patients with pain, stroke and paralysis, spasms, skin disorders, and a variety of acute diseases involving infection or inflammation affecting the upper part of the body. Table 4 gives a partial listing of acupuncture points well-known to be Wind-dispelling points [44].

7. Conclusion

The concepts of Wind in traditional medicine books have gone beyond the old established manuscript boundaries and are widely incomprehensible. This study intended to provide information, context, and guidance for a collection of all important subjects and simplification concepts for Wind. This new vision for understanding earlier Chinese medicine is applicable for public health specialists, traditional and complementary medicine practitioners, and those who are interested in historical medicine and provides a theoretical basis for herbal drugs or acupuncture administration to eliminate wind in order to treat various diseases.

Acknowledgment

The authors would like to thanks to Havva Dashtdar, PhD, biotechnology professional and embryologist for her valuable help in the preparation of this manuscript.

Conflict of interest

The authors declare that there are no conflicts of interest.

ORCID

Mehrab Dashtdar. <http://orcid.org/0000-0001-5931-4715>.

References

- Norford DP. Microcosm and macrocosm in seventeenth-century literature. *J Hist Ideas*. 1977;38(3):409-28.
- Zhengguo W, Peiping X, Ping C. History and development of traditional Chinese medicine (advanced traditional Chinese medicine series). *Ios Pr Inc*; 2000. 400 p.
- Dashtdar M. Textbook of acupuncture. Germany: VDM Verlag; 2010. 16 p.
- Maciocia G. The foundations of Chinese medicine: a comprehensive text for acupuncturists and herbalists. second edition. Edinburgh: Churchill Livingstone; 2005. 1236 p.
- Chen Y. Discussion of wei Qi-differential diagnosis of AIDS. *Chinese Journal of Basic Medicine in Traditional Chinese*. 2002;8(4):11-4.
- Zhanwen L. Essentials of Chinese medicine. London: Springer-Verlag London; 2010. 1578 p.
- Wu HZ, Fang ZQ, Cheng PJ. World century compendium to Tcm - volume 1: fundamentals of traditional Chinese medicine. USA: World Century; 2013. 460 p.
- Guiley RE. The encyclopedia of demons and demonology. New York: Checkmark Books; 2009. 277 p.
- Brody SN. The disease of the soul: leprosy in medieval

- literature. New York. Cornell University Press; 1974. 223 p.
10. Avicenna. The canon of medicine. New York: AMS Press; 1973. 641 p.
 11. Montoya D, Modlin RL. Learning from leprosy: insight into the human innate immune response. *Adv Immunol.* 2010;105:1-24.
 12. Lachs ST. The pandora-eve motif in rabbinic literature. *The Harvard Theological Review.* 1974;67(3):341-5.
 13. Liu G, Buck C. Foundations of theory for ancient Chinese medicine: shang han lun and contemporary medical texts. London: Singing Dragon; 2015. 280 p.
 14. Dashtdar M. Textbook of acupuncture. Germany: VDM Verlag; 2010. 17 p.
 15. Yi Z, Bian X, Wei J, Hui Y. Medical encyclopedia - Chinese medicine. Shanghai: Shanghai Science and Technology Press; 2000. 2371 p.
 16. Xin DL, Mérier C. Traditional Chinese medicine. Arbre D'OR Editions; 2013. 378 p.
 17. Subhuti D. The golden mirror of Chinese medicine. Oregon: Institute of Traditional Medicine; 1993.
 18. An annotated translation of Huang Di's inner classic - basic questions [internet]. Los Angeles: University of California Press; 2011. Available from: http://www.biblio.nhat-nam.ru/Huang_Di_Nei_Jing_Su_Wen-Unschuld-Tessenow-1-2.pdf.
 19. Huang PX, Liu MC. Stroke & Parkinson's disease: the clinical practice of Chinese medicine. Washington D.C.: People's Medical Publishing House; 2007. 392 p.
 20. Anonymous. [Chinese Society of neuroscience and Chinese society of neurosurgery. the diagnostic outlines for different types of cerebrovascular diseases]. *Zhonghua Shen Jing Ke Za Zhi.* 1996;29(6):379-80. Chinese.
 21. Zheng GQ, Huang PX. [Origin and development of yin and yang guiding principles for differentiation of treatment in stroke]. *Zhonghua Yi Shi Za Zhi.* 2003;33(4):227-30. Chinese.
 22. Veith I. The yellow emperor's classic of internal medicine. USA: University of California Press; 2015. 296 p.
 23. Xia X, Shen XH, Chen M. Introduction to Chinese internal medicine. New Jersey: World Century Publishing Company; 2013. 676 p.
 24. Walters R. The alternative cancer therapy book. New York: Avery Trade; 1992. 416 p.
 25. Wenwei X. Cancer = death?: treatment of cancer the Chinese way. Beijing: New World Press; 1997. 427 p.
 26. Yang GJ, Zhao I. [Observations on the results of 216 cases of breast cancer treated with combined Chinese-Western medicine]. *Intermediate Medical Periodical.* 1988;23(8):48-50. Chinese.
 27. Zhou M, Wu YH, Liu YD. Integrated Chinese-Western medicine treatments for advanced stage breast cancer: an analysis of 14 cases. *China Integrated Chinese-Western Medicine Journal.* 1995;15(4):237.
 28. Yin XD. [An analysis of 32 cases of breast cancer treated with a combination of FACT and Kang Lai Te injection]. *Ji Lu Tumor J.* 1999;6(2):158-9. Chinese.
 29. Anonymous. An analysis of 134 cases of breast cancer treated with Chinese-Western integrated medicine. *Chin Med J.* 1985;13:111.
 30. Lei QM, Song JS, Fan DN. [Observations on 77 cases of breast cancer treated with the Chinese herb teng huang]. *Cancer Prev Res.* 1986;13(2):111. Chinese.
 31. Shen SY, Jiang CY. [14 cases of breast disease treated with a combination of hai zao and gan cao]. *Chinese Medical News.* 1990;7(2):40-1. Chinese.
 32. Wang Q, He SJ. [31 cases of breast cancer treated with integrated Chinese-Western medicine]. *Cancer.* 1990;9(3):238. Chinese.
 33. Fan C. 30 cases of breast cancer treated by herbal medicines during chemotherapy after surgery. 1996.
 34. Guo T, Xu B, Yan SQ. [Neoadjuvant chemotherapy for advanced breast cancer (stage III)]. Shandong: Qingdao Tumors Hospital; 2000. Chinese.
 35. Niu DL. Curative observation on effects of Chinese herbs and Western drugs applied to quench vomiting caused by tumor chemotherapy. *Ch J Integ Trad Chin Med West Med.* 1995;15(7):397.
 36. Liu M, Yao M, Shen P. Personal experience in the herbal treatment of postoperative breast cancer. Beijing: Beijing Institute for Cancer Research; 1996.
 37. Li P, Wang X, Yu R. A study of breast cancer due to mental depression. Beijing: Beijing TCM Hospital; 1996.
 38. Liu S. Lu demings experience in the treatment of advanced metastatic breast cancer. 1996.
 39. Mitoshi M, Kuriyama I, Nakayama H, Miyazato H, Sugimoto K, Kobayashi Y, *et al.* Effects of essential oils from herbal plants and citrus fruits on DNA polymerase inhibitory, cancer cell growth inhibitory, anti-allergic, and antioxidant activities. *J Agric Food Chem.* 2012;60(45):11343-50.
 40. Mukherjee PK. Exploring botanicals in Indian system of medicine-regulatory perspectives. *Clin Res Regul Aff.* 2003;20(3):249-64.
 41. Cardile V, Russo A, Formisano C, Rigano D, Senatore F, Arnold NA, *et al.* Essential oils of *Salvia bracteata* and *Salvia rubifolia* from Lebanon: chemical composition, antimicrobial activity and inhibitory effect on human melanoma cells. *J Ethnopharmacol.* 2009;126(2):265-72.
 42. Yu JQ, Lei JC, Zhang XQ, Yu HD, Tian DZ, Liao ZX, *et al.* Anticancer, antioxidant and antimicrobial activities of the essential oil of *Lycopus lucidus* Turcz. var. *hirtus* Regel. *Food Chem.* 2011;126(4):1593-8.
 43. Hua TD. Utility Chinese dictionary. USA: People's Health Publishing House; 2005. 2386 p.
 44. Dashtdar M. Textbook of acupuncture. Germany: VDM Verlag; 2010. 336 p.