



Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

Clinical Nutrition Experimental

journal homepage: [http://
www.clinicalnutritionexperimental.com](http://www.clinicalnutritionexperimental.com)



Opinion Paper

Food therapy and medical diet therapy of Traditional Chinese Medicine

Qunli Wu, Xiaochun Liang*

Department of Traditional Chinese Medicine, Peking Union Medical College Hospital, Peking Union Medical College and Chinese Academy of Medical Sciences, No. 1 Shuaifuyuan, Dongcheng District, Beijing, 100730, China

ARTICLE INFO

Article history:

Received 3 December 2017

Accepted 1 January 2018

Available online 10 January 2018

Keywords:

Food therapy

Medical diet therapy

Traditional Chinese Medicine

Clinical nutrition therapy

Clinical applications principles

Yin-Yang balance

ABSTRACT

Food therapy of traditional Chinese medicine aims to maintain balanced nutrition through diet. Medical diet therapy, however, is to achieve the balance of Yin and Yang through the combination of nutrition and medicine. Either “food therapy” or “medical diet therapy” aims to keep health, prevent disease, remove illness and slow aging. In recent years, both food therapy and medical diet therapy have been increasingly applied in clinical nutrition therapy. In terms of traditional Chinese food therapy and medical diet therapy, their clinical applications principles are summarized in this article.

© 2018 The Authors. Published by Elsevier Ltd on behalf of European Society for Clinical Nutrition and Metabolism. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Food therapy of traditional medicine aims to maintain balanced nutrition through diet. Medical diet therapy, however, is to achieve the balance of Yin and Yang through the combination of nutrition and medicine. There are both connections and distinctions between them. On the basis of traditional food therapy, medical diet therapy coordinates with drugs and adopts traditional culinary skills and modern processing methods to produce food, which is not only with terrific color, aroma, taste and shape but also health-keeping, disease-resisting and healing as well as longevity-promoting. It treats through eating, that is, medicine can be used as food and food can be combined with medicine. In this way, medicine functions by means of food and food reinforces the effects of medicine. To this extent, medicine and food supplement and bring out the best in each other through combination. Either “food therapy” or “medical diet therapy” aims to keep health, prevent disease, remove illness and slow aging.

* Corresponding author.

E-mail address: xcliang@vip.sina.com (X. Liang).

<https://doi.org/10.1016/j.jclex.2018.01.001>

2352-9393/© 2018 The Authors. Published by Elsevier Ltd on behalf of European Society for Clinical Nutrition and Metabolism. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Long before, plenty of monographs appeared in masterpieces of Traditional Chinese Medicine, like *Canon of Yellow Emperor*, *Shennong's Classic of Materia Medica*, *Invaluable Prescriptions for Ready Reference*, *Principles of Correct Diet*, discussing how diet plays a role in human's physiology, pathology, health maintenance and disease treatment. For example, in *Plain Questions: On Soup and Mash*, it is recorded that grains were boiled into soup, as nourishment to the five internal organs (heart, liver, spleen, lung and kidney) in ancient times. After boiling for some time, grains were fermented and turned into mash, which can be used as treatment to the above five internal organs.

With the rapid growth of people's living standard and working pace, more and more attention and recognition are paid to the adjuvant therapeutic effects of food therapy and medical diet therapy, that is, health maintenance and disease avoidance. In recent years, both food therapy and medical diet therapy have been increasingly applied in clinical nutrition therapy. In terms of traditional Chinese food therapy and medical diet therapy, their clinical applications principles are summarized as follows.

2. Food therapy—"To fully cure disease, eat grains, meat, fruit and vegetables"

Written more than 2000 years ago, *Plain Questions: On Laws and Times of Organs* had already pointed out that grains to nourish, fruit to assist, livestock to benefit, vegetables to supplement, take them in proper proportion to supply energy. The key point is to keep a balanced diet. Besides, it has suggested that when one's illness is already under control, it could be removed gradually by eating grains, meat, fruit and vegetables. There is no more need to take too much medicine, which might cause extreme side effects to our health. The claimed "grains to nourish" refers to using millet, sorghum, beans, wheat, rice and other cereals and beans as staple food for maintaining one's life. "Fruit to assist" means that Li, apricot, chestnut, peach and other fruits and nuts are essential food aid to balanced diet. "Livestock to benefit" emphasizes that cattle, dogs, sheep, pigs, chicken and other livestock are beneficial to human body along with making up the deficiency of nutrition that grains can't provide. They serve as the main complementary food in the balanced diet recipe. "Vegetables to supplement" indicates that vegetables like kwai, leek, allium, scallion, shallot etc. can supplement various essential nutrients.

In other words, grains, meat, vegetables and fruit should be used in proper proportions so as to maintain the normal function of human body. Moreover, following a diet is very necessary and it is not advisable to either starve or overeat. Starvation will cause insufficiency of vital energy and blood and decline of immunity, resulting in diseases, such as malnutrition, anemia. According to *Plain Questions: On Arthralgia*, intestines and stomach would be impaired by overeating, along with symptoms like abdominal fullness and distention, anorexia, excessive gastric acid and vomiting and diarrhea. Therefore, Traditional Chinese Medicine emphasizes that it is necessary for people to keep a regular diet habit and arrange balanced diet according to one's age, gender and constitution. This viewpoint is exactly consistent with the balanced diet proposed by experts of modern nutriology.

Traditional Medicine holds that food has various properties, including warm, hot, cold, cool. Among them, warm and hot share the same property, while cold and cool are of the same nature. Warm and hot food can warm the spleen and stomach for dispelling coldness, invigorate the spleen and reinforce the stomach, and reinforce the kidney-yang, which are suitable for those who are in deficiency of Yang with hyperactivity of Yin and cold constitution, with symptoms appearing like cold limbs and waist, chills, thin sloppy stool and frequent nocturia. Warm food mainly includes glutinous rice, oats, red dates, arillus longan, pine nut, garlic, chives, onion, coffee, black tea and chicken, etc. Hot food basically includes pepper, cinnamon, mutton, venison, etc. Both cold and cool food possess positive effects, for instance, clearing heat and purging fire, detoxifying and laxative, expelling damp and dryness, which are beneficial to those in deficiency of Yin and with hyperactivity of Yang and hot constitution, with symptoms like repeated sore mouth and tongue, dry mouth and tongue, dysphoria with feverish sensation in chest, palms and soles, and dry stool, etc. Cool food mainly involves millet, mung bean, pear, mango, loquat, lily, tomato, eggplant, tofu, lotus root, wax gourd, chrysanthemum, milk, and rabbit, etc. Cold food includes watermelon, bitter melon, kelp, nori, water spinach, honeysuckle and aloe, etc. In addition, there is some mild food, neither cold nor hot and good to eat all year round, for instance, rice, corn, sesame, soybean, cowpea, pea, apple, pineapple, grape, peanut, radish, Chinese yam, mushroom, pork, lycium barbarum, etc.

Food does not only possess the above four properties, that is, warm, hot, cold and cool, but also carry with five flavors, viz., spicy, sweet, sour, bitter, salty. According to *Plain Questions: On Five Flavors*, talking about distributions of five flavors, sour food was said to be absorbed by the liver, spicy by the lungs, bitter by the heart, salty by the kidney, sweet by the spleen. That is to say, each flavor plays a different role in different organs respectively. Disordered diet or being partially addicted to a particular food will do harm to the above mentioned five organs. In *Plain Questions: On Vigor and Nature*, it's been mentioned that on the one hand, Yin originates from five flavors, however, on the other hand, organs where Yin is stored could also be impaired by overuse of five flavors. If it is too sour, the liver-qi would increase and the spleen-qi will decrease. If too salty, it could lead to bone damage, impotent muscle and depressed heart-qi; if too sweet, the heart-qi would rise up, causing asthma, darkened skin and imbalance of the kidney-qi; if too bitter, it could cause dryness of the spleen-qi, bloating of stomach; if too spicy, tendons and vessels would become flabby and vigor would be undermined. That is to say, physiological condition and pathological mechanism of the five internal organs are inseparable from the five flavors of food. Thus, Sun Simiao from Tang Dynasty wrote a special article in *Invaluable Prescriptions for Ready Reference*. He pointed out that being a doctor, the first thing is to know clearly the source of the disease, what the symptom is and treat with food therapy. If food therapy fails, then prescribe medicine. This concept indicates that food therapy should be used before medication therapy, which theoretically supports the view, “dietetic nourishment should be used in preference to medical invigoration.”

3. Medical therapy—Harmonize Yin-Yang to balance

Traditional Chinese Medicine believes that a state of health signifies the balance of Yin-Yang, while a condition of pathological state implies imbalance of Yin-Yang. As it is said in *Plain Questions: On Regulation of Menstruation*, if Yin and Yang have been in a balance, it will be shown in his physique; if the nine pulse taking sites functions as one, he shall be considered to be healthy. On the contrary, “excessive Yin causes Yang disease, vice versa, excessive Yang causes Yin disease. Predominance of Yang brings about heat syndrome, vice versa, predominance of Yin brings about cold syndrome”, stated in *Plain Questions: On Yin-Yang Regulations*. Hence, “the basis of proper treatment needs to figure out the status of Yin-Yang. Then regulate it into balance”, recorded in *Plain Questions: True Essence*. Traditional Chinese Medical diet therapy is exactly conceived under the guidance of holistic theory, whose core is Yin-Yang balance. By means of making up deficiency of one side and controlling excessiveness of the other side, Traditional Chinese medical diet therapy aims to bring Yin-Yang back to a relatively balanced state.

The so-called “controlling excessiveness” mainly targets at constitutions or symptoms with excessive Yin. For heat syndrome caused by excessive Yang heat, medical diet therapy suggests to “expelling heat with cold herbs”. For example, choose reed rhizome, lotus leaf, mung bean and other medicine of cold nature to make porridge or soup so as to clear away heat (Yang). For cold syndrome caused by excessive Yin cold, medical diet therapy suggests to “treat cold with hot herbs”. For example, add cinnamon, dry ginger, fennel to make porridge or soup so as to dispel cold (Yin). Yet the alleged “making up deficiency” is mainly applied for constitutions or symptoms with deficient Yin or Yang. When dealing with deficient heat syndrome resulting from deficient Yin, medical diet therapy recommends to “use cold-nature herbs to restrain Yang”. For example, add radix asparagus, radix ophiopogonis, lily, radix polygonati officinalis, etc. into cooking to nourish Yin and inhibit Yang. When dealing with deficient cold syndrome resulting from deficient Yang, medical diet therapy advises to “boost the source of heat to eliminate Yin”. For example, stew mutton meat with antler gelatin, radix aconiti lateralis preparata, nourishing Yang to restrain Yin. Just as in this way, food therapy should adopt according to conditions of Yin-Yang and diet should be properly arranged to maintain the balance between Yin and Yang.

4. Treatment in accordance with three categories of etiologic factors

The essence of three categories of etiologic factors refers to treat individually-oriented, climate-oriented and locality-oriented. It means that to achieve the expected therapeutic effects, what to eat should be tailored to the needs of corresponding constitution, age, gender, region and other situations.

4.1. Climate-oriented

Just as the four seasons are graded as cold, hot, warm and cool, the properties of food and medicine also vary from one to another, including refreshing, light, pungent and mild tonic. Accordingly, either food therapy or medical diet therapy should be adjusted in different seasons so as to comply with the natural laws of climate changes. Human's activities should be in accordance with the following rule: "sow in spring; grow in summer; harvest in autumn; store in winter". As per recommendations in *Principles of Correct Diet*, written by imperial physician Hu Sihui of Yuan Dynasty, "warm in spring, suitable for eating wheat to cool; hot in summer, suitable for eating mung beans to chill; dry in autumn, suitable for eating sesame to nourish dryness; cold in winter, suitable for eating broomcorn millet to dispel cold.

Spring is a good time to nourish growth and development qi. So it's better to eat those can sooth the liver in order to keep liver and other organs functioning normally. For instance, Chinese chives taste pungent but warm in nature. Its pungent taste assists to disperse liver qi and its warm nature is helpful to warm Yang and tonify the weak. This also conforms to the theory, viz., "nourish Yang in spring and summer". Meanwhile, people ought to cut down their intake of sour food and increase that of sweet food. It's better to tonify the spleen with sweet food, like Chinese yam, lycium barbarum, sweet potato, etc.

In summer, the climate is hot. So it is advisable to treat heat syndrome with cold, using food which can clear heat, nourish Yin and promote the production of body fluid, such as watermelon, fresh lotus root, mung bean and cucumber, etc. They had better reduce bitter food and increase pungent food to nourish the lungs. The long summer stands between summer and autumn, both hot and damp. The dampness in the air reaches the peak during this period. Thus, it's better to choose ingredients that can invigorate the spleen and eliminate dampness, for example, Poria cocos, coix seed, wax gourd, semen lablab album, lotus seed, etc.

When autumn comes, everything begins to converge as the climate turns cool and dry. It's time to nourish lungs with moistening food, such as, pear, lily, loquat, etc. In autumn, people ought to eat less pungent food but intake more sour food in order to drop off lung qi and benefit liver qi. Therefore during autumn, ginger, garlic, scallion with pungency should be lessened while sour food like dark plum, hawthorn, grape, should be encouraged.

In winter, the air is mainly filled with coldness. Thus, it's time to "expel cold with heat", suitable for eating warm and hot food, like mutton, chicken, etc.

4.2. Locality-oriented

"Locality-oriented" refers to using different food therapy or medical diet therapy according to different regions. Climate, natural environment and living habit of different regions have different influence on human body's physiological activity and pathological changes. In cold and dry highland, where is often occupied with coldness and dryness, it's better to eat pungent and nourishing food or crude medicine. For example, fresh ginger, allium fistulosum, perilla leaf, cassia, mutton, etc. are favorable. However, in those hot and rainy, low and humid places, where is bathed in high humidity and heat, it's better to choose heat-clearing and damp-expelling food or crude medicine. For example, coix seed, cardamom fruit, ageratum, mint, villous amomum, etc.

4.3. Individual-oriented

Treatment in accordance with patient's individuality means to nurse his or her body by selecting those food or medicine based on individual constitution, age, gender and lifestyle. For instance, in terms of constitution, Yang-deficient people need to recuperate with warm food, such as mutton porridge. Yin-deficient people need to revitalize with nourishing food, such as tremella soup, radix ophiopogonis porridge. Qi-deficient people should be supplied with qi. It's necessary to try ginseng porridge, astragalus soup. Blood-deficient people had better to enrich the blood. Drinking soup that made from Chinese angelica and mutton would be a good choice. As for phlegmatic hygro-sis patients, who are in need of dispelling phlegm, they should try porridge made from Pinellia ternate and Chinese yam.

In respect of age, children are vigorous, “Yang often excesses and Yin is often in deficiency”. So do not administer invigorators to them. Their illnesses mostly result from excessive heat. In this case, food therapy or medical diet therapy should focus on clearing heat and diminishing fire. As for the aged, the functions of their viscera weaken gradually, causing insufficiency of qi and blood. They get sick mostly due to their deficiency of essential nutrients. The proper solution is to restore with invigorators.

As another example, men and women appear to be different physiologically and pathologically because of different gender. Women are confronted with menstruation, leucorrhea, pregnancy and parturition, which should be taken into consideration when adopting food therapy or medical diet therapy. For example, during their menstrual period and gestation period, food therapy generally focuses on supplementing Yin and blood. Egg, E Jiao (Colla Corii Asini) would be desirable in this case. Meanwhile, avoid food or medicine which is too hot, too cold, blood activating or purgative.

5. Conclusion

In conclusion, food therapy and medical diet therapy are effective approaches to nurse human body, which are based on properties like four natures, five flavors of food and medicine, targeting at different constitutions or diseases. These two therapies show the idea of disease prevention of Traditional Chinese Medicine. The dietetic structure, “Nourish with the five cereals” and principle “Going on a diet” are completely consistent with dietary balance principle of modern nutriology. What was discussed above is only the basic principle of food therapy and medical diet therapy. Specific applications should be based on specific cases. For example, patients with intestinal malabsorption syndrome are mostly spleen-deficient and dampness-excessive. Using 30 g Poria cocos, 30 g coix seed, 10 lotus seed and Chinese yam to make porridge could. For another example, patients with hyperlipemia are of phlegm-dampness constitution. Boil 30 g lotus leaf, 10 g Alisma orientale in water. Then add round-grained rice into the filtered water to make porridge so as to clear dampness and reduce lipid.

It is believed that the advantages and features of food therapy and medical diet therapy will guide us into a green health care mode. With the development of modern technology, theories of food therapy and medical diet therapy will be enriched and endowed with new meaning in order to further improve and popularize them in use.

Conflict of interest

None declared.