

A Small Discussion on the Guiding Significance of the Theory of Diet Recurrence and Heat That Has Not Yet Dissipated in the Recovery Period of Pediatric Febrile Illnesses in the Plain Questions Treatise on Heat

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Abstract: *Pediatric febrile illnesses are relatively common in clinical practice, especially respiratory and digestive system diseases are most common, which can be said to be common and frequent. Whether in the acute or recovery period, improper dietary feeding and protective measures occur from time to time, which can easily lead to recurrence, delay, aggravation and other diseases, and how to prevent pediatric problems in this area needs to be solved. Based on the theory of diet recurrence and heat that has not yet dissipated, it is important to discuss the role and influence of diet and feeding on the recovery period of children's diseases, so as to guide the parents to have a reasonable diet during the process of the disease, to promote the recovery of children's diseases as soon as possible, and to avoid the disease recurrence, prolongation, aggravation, and not yet dissipated.*

Keywords: Pediatric diet recurrence and heat that has not yet dissipated, Etiology, Clinical manifestations, Modern research, Diet regulation, Prevention and treatment.

1. Introduction

In the pediatrician's work, we often meet this situation: after the treatment of the disease is in the recovery or improvement period, parents in order to so-called let the child have a better nutritional basis for the recovery of the disease, often will be active or passive to give the child chickens, ducks, fish, meat, soup and other fat, sweet and thick and greasy products in order to promote the recovery. At this time after such a process will often make the disease repeatedly lead to fever or cause diarrhea, vomiting and other gastrointestinal symptoms and other diseases. According to the theory of heat that has not yet dissipated in Plain Questions, inappropriate diet recurrence will cause the disease to be prolonged and/or repeated, especially in the recovery period, the occurrence of the above situations caused by irrational diet recurrence not only affects the recovery of the child's health, but also affects the growth and development of the child. We would like to discuss the mechanism of pediatric "diet recurrence and heat that has not yet dissipated", in order to guide parents in the recovery process of pediatric diseases to eat a reasonable diet, to promote the recovery of the disease as soon as possible, to prevent the disease from recurring, delayed, aggravated and other diseases. Now described as follows.

2. Diet Recurrence and Heat That Has Not Yet Dissipated Theory of Heat That Has Not Yet Dissipated

Diet recurrence and heat that has yet dissipated has the following meanings: one refers to febrile illnesses in the recovery period, not restrained diet and cause fever again; the second refers to febrile illnesses in the course of the disease,

due to overeating and binge drinking and causing the disease to be prolonged and not cured. The theory is first seen in the Plain Questions - heat theory chapter: "emperor said: disease fever has been healed, sometimes there are left, why? Qibo said: the remains, the heat is very strong food, so there are remains. If so, all the disease has been declining and heat have hidden, because of its grain gas phase thin, the two heat together, so there is a legacy of..... emperor said: when the disease heat when what to prohibit it? Qibo said: disease fever less healing, eating meat is back, more food is left, this is also prohibited." The disease mechanism is due to overeating, dietary indiscretion leads to ambush evil, residual evil reborn, fever recurrence or delayed healing. It is pointed out that the residual evil is the cause of the disease and "strong food" is the causative factor.

Later medical doctors also have a detailed discussion of this, such as Zhang Zhongjing in the "Treatise on Typhoid Fever" 398 points out that the specific clinical manifestations: "the patient's pulse has been resolved, but the daybreak is slightly annoying", the mechanism of the disease for "people strong with the grain, the spleen and stomach qi is still weak, can't eliminate the grain, so it makes the slight annoyance, loss of the grain is cured." Pointed out that although the heat retreat pulse security, but the spleen and stomach gas is weak has not yet been restored, can not overeat; Sun Simiao in the "Preparing for the emergency Qian Jin to be prescribed" also said: "when the disease is new poor, eating raw jujube and lamb, will be diaphragm for hot steam. Elucidation of its pathology for the weakness of the internal organs, the spleen and stomach transportation and acceptance of powerlessness, the accumulation of heat caused by the internal growth. Treatment on the light "loss of grain is healed", the heavy use of sweat, under the two methods, to hedge hedge gardenia

black bean soup, small chaihu soup with the evidence plus and minus. Nestle Yuanfang in "the source of all diseases theory" pointed out that "the time gas diet recurrence: the disease is newly recovered, the spleen and stomach is still weak, the grain gas is not recovered, if that is eaten fat meat and fish chopping, cake bait jujube and chestnut belongings, then can not be digested, stagnation in the intestines and stomach, so that the fullness of the knot, due to the more fever, back to the disease, the name of diet recurrence also". Sun Simiao in the "Thousand Golden Essentials" detailed list of prohibited foods: "Where the fever is newly recovered, food pigs and sheep's blood, fatty fish, greasy and so on will be a big downli..... If you eat cakes and bait, sorghum and millet, Yi-products, jujube and chestnut and solid and difficult to consume things, the stomach gas is still weak, can not be digested, it will be more knot heat..... Drinking wine and leeks, the disease is more hair..... eat all meat and noodles, the disease will be sleepy." Pang Anshi in the "typhoid fever" in the more detailed dietary management of fever: "fever after thinning, the first congee soup, the second into the gruel, but also must be less with the, do not over-eat; as for the wine and meat, in particular, should be prohibited, if there is not careful, it will be back to the fever." It points out the order of gradual transition from fluid to semi-fluid food.

3. Etiopathologic Features of Pediatric Diet Recurrence

3.1 Influence of Pediatric Physiopathological Characteristics

Children "organs delicate, shape gas is not yet full" rapid growth and development, and adults need more nutrients, in order to meet the needs of the spleen and stomach to bring a heavy burden. Children's "childish yin and childish yang body, the spleen is often insufficient," the spleen and stomach function is not sound, manifested in the poor development of digestive glands, gland secretion, weak digestion, transportation and so on. After a serious illness or a long illness, the function of the spleen and stomach is in a low state, i.e., "the stomach qi is not restored", and at this critical moment, we should focus on regulating the spleen and stomach to promote the recovery of the spleen and stomach function. If this time to be fat, sweet, thick and greasy products to supplement, is not conducive to the recovery of the body, but will aggravate the burden on the spleen and stomach, further damage to the spleen and stomach qi, as the "pediatric health general microfont," said: "the spleen and stomach has been cold, food has been the first not to be transformed, feeding and then a little bit of inappropriate, even if it is into the injury also". To look at it from another angle, excessive gastrointestinal burden, inability to digest the ingested food, food stagnation within the stagnation of milk and food is not timely putrefaction, the distribution of water and grains and essence is not normal, and become a new disease-causing factors and become a disease, that is, the so-called "diet recurrence". Ancient and Modern Medical Journal" said: "children's spleen and stomach from the soft and brittle, too much food, damage to the spleen and stomach, the spleen and stomach are injured, can not digest the water and grain, water and grain is not stagnant and fever". The possible causes of its pathogenesis is, for one thing, the first healing of the disease viscera function is weak, the spleen and

stomach transportation weakness, putrefaction transport is weak, can not fully decompose the food in the macromolecular material into antigen, the antigen role in the body leading to systemic immune function inhibition, the emergence of the original foci (eg, infected bacteria, etc.) resurgence of the original disease [1]. Secondly, due to the low digestive function and absorption function after the disease, insufficient secretion of digestive juices, lack of digestive enzymes, gastrointestinal power is weakened, resulting in food congestion, and under the action of bacteria corruption and fermentation, the body absorbs too much of all kinds of harmful substances, and there is a fullness of the epigastrium and abdomen, loss of appetite, bowel movements and other gastrointestinal dysfunction manifestations. Therefore, the etiology and pathogenesis of diet recurrence can be summarized as follows: overeating injures the stomach, meat helps heat; deficiency of positive qi, deficiency of spleen qi, dysfunction of transportation and digestion, and accumulation of heat.

3.2 Failure and Inadequacy of Treatment and Care

Due to the great change and improvement of material living conditions, people generally live a rich material life, today's only child mostly, parents and grandparents are worried about children's nutritional deficiencies, too much worry about the physical weakness of the poor, while the child is easy to cry and easy to appease the child is not easy to not distinguish its nature, give the child fat, sweet and thick and greasy food and drink, the disease by the treatment of the first healing, although the evil gas is weakened, but the residual evil has not been cleared. At this moment, dietary care if you can not correctly deal with the relationship between supporting the positive and eliminating the evil, purely complementary to the residual evil is easy to rekindle, or lead to the imbalance of yin and yang. Plain Questions - heat theory" said: "the disease heat less healing, eating meat is back, more food is lost,....., if so, all the disease has been declining, and the heat has hidden, because of its grain gas is thin, the two heat is combined, so there is also lost." Modern research has shown that the formation of phagocytes or other cells, or swallowed bacteria L-type such as failure to be effective bactericidal action, it may be returned (the process of cell wall resynthesis) for the original bacteria and re-infection. The return of bacterial L-forms to the original bacteria is an important cause of disease recurrence. The return of bacterial L-forms is mainly due to the high lysine content of protein-rich meat, egg and dairy foods, and dietary factors play an important role in the return of bacterial L-forms. It leads to recurrence of the disease [2].

4. Diet Recurrence and Heat That Has Not Yet Dissipated Clinical Manifestations

The original disease delayed or aggravated: such as clinical common bronchopneumonia, childhood asthma, diarrhea disease in children, often due to the diet of sorghum thick taste and the condition of repeated delay, or even aggravation.

Spleen and stomach transport dysfunction is the main manifestation: food to the thick taste of sorghum, easy to cause gastrointestinal dysfunction can be seen in abdominal distension, abdominal fullness, loss of appetite, bowel

irregularities, and so on.

Clinical low or moderate fever is common. Weakness of the spleen and stomach, spleen movement is not healthy, the intake of food with high protein content or strong food, resulting in blockage in the middle Jiao, internal heat and invisible residual evil combined with the fever.

Immune dysfunction is one of the pathologic bases of recurrent respiratory infections.

5. Modern Research on Diet Recurrence and Heat That Has Not Yet Dissipated

5.1 Relationship with Intestinal Flora

Chinese medicine believes that the occurrence and development of exogenous fever is precisely caused by the result of the struggle between positive and evil. "Positive qi exists inside, evil can not be dry" "where the evil is, its qi must be weak", the root cause of the onset of the disease is the deficiency or lowering of positive qi, and the invasion of evil qi is a necessary condition for pathogenesis. The gastrointestinal microecosystem is not only the largest immune system, but also the largest reservoir of bacteria and endotoxin. The body's immune response requires the participation of the intestinal flora, which is considered to be the new "organ" of man [3]. The "leaky gut" hypothesis emphasizes that the permeability of the intestinal wall increases during inflammation, and bacteria and their metabolites will enter the circulatory system with inflammatory factors causing endotoxemia. On the one hand, intestinal microorganisms can form a bacterial membrane barrier through colonization, which provides a physical occupancy defense and prevents toxic substances from passing through the mesenteric membrane into the blood circulation, and on the other hand, they can secrete antibiotics, form a chemical barrier to inhibit the propagation of other pathogenic bacteria, or directly kill pathogenic bacteria [4], or induce the host to produce antimicrobial peptides and cytokines to cause inflammation and exclude pressure from other bacteria, but at the same time, they may produce anti-inflammatory factors to reduce damage to themselves [5]. GI bacteria also synthesize amino acids for the host to synthesize immune proteins, which enhances immunity and inhibits the return of bacterial L-forms [6]. Gas-producing bacteria in the intestinal flora enhance intestinal motility and promote the elimination of toxic substances and spoilage bacteria. On the other hand, an imbalance in the intestinal microecology and immune system in specific situations causes the development of exogenous fever [7]. After the immune system is activated, inflammatory factors by affecting the neuro-endocrine system make gastrointestinal smooth muscle peristalsis weakened, pathogenic bacteria elimination reduced intestinal bacteria upward translocation increased. Elevated body temperature not only destroys the temperature conditions suitable for the survival of normal intestinal flora, but also leads to inactivation of digestive enzymes and further changes in the pH of the internal environment. The failure of the physical and chemical barrier function of normal intestinal flora provides a breeding ground for spoilage bacteria, which further stimulates the immune response and causes a vicious cycle.

5.2 Relationship with Feeding

During the recovery period of febrile illness, with the recovery of gastrointestinal function, the child's appetite is restored, and he can eat on his own. Even so, need to eat a small amount of rice soup porridge and other easily digestible food and gradually increase, and then can be less meat flavor, to prevent the re-emergence of fever. Microecology suggests that the preference for fatty, sweet and greasy foods may be related to the selection of intestinal flora. The gut serves as a dietary target, and each of its flora has inconsistent nutritional preferences, with probiotics favoring sugars and plant proteins, and pathogenic bacteria favoring high-fat, high-animal proteins. It has been shown that germ-free mice that were transplanted with high abundance of pathogenic bacteria and low abundance of probiotics preferred high-fat foods [8-9]. The mechanism is that gut bacteria metabolize short-chain fatty acids, indoles, neurotransmitters, etc., which intervene in the host's eating behavior through the "microbe-gut-brain axis" [10]. During the recovery period of exogenous fever, probiotics have not yet gained the advantage of reproduction, and a large number of pathogenic bacteria thus affect the central system, causing the host to reflexively generate dietary preferences, and prompting meat-eating behavior. Intestinal bacteria (e.g., Bifidobacterium) can break down and convert lipids and proteins into small soluble molecules to aid in their digestion and absorption. Due to the lack of probiotics such as Bifidobacteria in the later stages of exogenous fever, digestion and absorption of lipids and proteins are weakened and accumulate in the gastrointestinal tract. Endotoxin is transported as celiac particles in the intestine, and excessive fat stagnation leads to increased celiac particles in the intestine, accelerated infiltration of endotoxin into the circulatory system, and elevated blood endotoxin levels, which stimulate the immune system and again cause fever [11]. Zinc is essential for the synthesis of digestive enzymes. Fever causes the body to eat less and consume less zinc, which, together with the passive involvement of zinc in tissue repair, increases consumption and results in zinc deficiency [12]. At the same time, intestinal microecological disorders trigger diarrhea, which increases the loss of zinc [13]. Zinc deficiency can cause a decrease in growth hormone secretion, nucleic acid and protein synthesis disorders, a decrease in salivary phosphatase, oral mucosal hyperplasia and hyperkeratosis is easy to fall off, affecting the sense of taste leading to partiality, heterophagy; zinc deficiency reduces the vitality of hydroxypeptidases, so that the digestive function is significantly reduced [14]. Zinc deficiency caused by fever further leads to the accumulation of fat and protein in the intestine, aggravating the penetration of endotoxin and accelerating the relapse process.

6. Principles of Dietary Modification based on the Theory of Diet Recurrence and Heat That Has Not Yet Dissipated

6.1 Dietary Taboos

The Golden Chamber - beasts and animals, fish and insects, taboos and treatment of the chapter: "the taste of food, there are appropriate with the disease, there are harmful with the body. If appropriate is beneficial to the body, harmful to the disease". Plain Questions - Xuanming five qi chapter"

According to the principle of the five flavors into the proposed: "Xin go gas, gas disease, no more food Xin; salty go blood, blood disease, no more food salty; bitter go bone, bone disease, no more food bitter; sweet go meat, meat disease, no more food sweet; acid go tendon, tendon disease, no more food acid. It is called the five prohibitions, no more food." Tip diet properly or not on the return of the disease has an important impact, should be based on the nature of the disease to do food has a taboo. Meat food sex more warm and hot, and the evil of fever is also hot, the evil gas is not exhausted when wantonly eat, will inevitably cause meat heat to steal help evil heat, two hot fight, the evil even long, the recurrence of the disease or aggravation of the situation is obvious, so it is said that "eat meat is back". Compendium of Materia Medica" records: "mutton is very hot, fever and day line disease, malaria, eating it will be feverish and dangerous." Danxi cloud "all fish belong to the fire" "all fish in the water, no rest stop, can move the wind and fire." In addition, pepper, peppercorns, chili peppers, leeks, mustard greens, parsley, ginger and other warm ingredients also belong to the ancient medical records, such as the "Materia Medica Jingzhu" pointed out that "pepper, the taste of Xin, the gas is warm, nature is not poisonous, but the Xin temperature is too much, too much service is not harmful, the smell of all thick, the sun in the Yang Yang also". "stomach gas is weak and hot people do not serve leeks (vegetables)". "Pharmacognosy test" states: "chili, more food vertigo spin, moving fire is also." The Materia Medica Compendium" mentioned mustard "eaten for a long time, the accumulation of warmth into heat, too much XinShan." It can be seen, such warm and hot and dry products after eating the most easy to send wind and disease, help heat and fire, heat illnesses should be avoided.

Modern research found that fish, shrimp, crab food itself contains histamine and other components can make the capillary dilatation, vascular wall permeability increases, causing tissue fluid exudation, resulting in increased inflammation [15]. Foods with warm tonic effect such as mutton, dog meat can increase basal metabolic rate, increase the level of serum TNF- α and other inflammatory factors [16]; pungent and warm stimulating products such as green peppers can up-regulate the expression of IFN- γ , IL-17, and then promote inflammatory response [17].

6.2 Moderation of Diet

"The middle jiao take gas juice, change and red is blood", the spleen and stomach for the birth of the source, the main division of the transportation of water and grains, ascending and descending turbid to serve the body. The first recovery from fever, the patient "spleen and stomach gas is still weak, can not eliminate the grain", the spleen and stomach is weak, if overeating can easily lead to fullness, in turn, self-inflicted injuries, "more food will be lost". Therefore, later generations of doctors advocate "dietary control, care for the spleen and stomach" as the first principle of preventing "diet recurrence", the spleen and stomach for the source of biochemistry, emphasizing that the first recovery from fever should pay attention to enhance diet and nutrition in order to replenish vital energy, but not wantonly eat, depending on the disease process, the recovery of the spleen and stomach function to choose the appropriate diet to meet the needs of the patient. It is emphasized that the first recovery from fever should pay

attention to improving diet and nutrition in order to replenish the vital energy, but should not eat indiscriminately, depending on the course of the disease.

7. The Significance of diet recurrence and Heat That Has Not Yet Dissipated in Guiding Prevention and Treatment

Wang Kentang of the Ming Dynasty once pointed out that: "after a new disease, it is only appropriate to enter the first white gruel soup, the second into the thick, and the second into the rice porridge, but also to be less with it, and often make it insufficient, and can not be intentionally eaten, and all kinds of meat and other things, are not to be eaten." Qing Dynasty pediatrician Chen Fucheng pointed out in the "young young integrated" "children after the disease, must not be presumptuous use of meat and fish, can only be adjusted to the vegetarian diet, or a month and a half, to be its temperament has been healthy, can be a little with the soup, still not overly sweet and fat. Cover sweet and fat things are not only can not benefit the child, suitable enough to cause disease. These statements are in line with the conclusions of the above modern medical research, that is, in the recovery period of the disease eating rice porridge, pasta, vegetables and other light and easy to digest food, less digestive enzymes needed to avoid increasing the burden on the child's stomach and intestines, easy to break down into small molecules, will not form antigens and the child's immune function of the whole body impact. At the same time, this kind of food with low lysine content can affect the re-synthesis of bacterial L-type cell wall and inhibit its return, thus controlling the occurrence of diet recurrence.

8. Summary

Due to diet recurrence and heat that has not yet dissipated, the child's condition is aggravated and prolonged, and it is easy to be complicated by other diseases. The pathology of diet recurrence is complex and complicated, and it is difficult to apply common methods to achieve the effect if the rationale is not investigated in the treatment. Therefore, for the treatment of diet recurrence, should follow the Plain Questions - Heat Theory "depending on its deficiency, adjusting its inverse from, can be made to be carried out," the principle of treatment, or tonic or diarrhea, according to the situation. If only diet recurrence of light evidence, can be given to "loss of grain will be cured" "typhoid theory". In clinical practice, only a small amount of light diet should be fed to the patient several times, so that the stomach qi will recover and the patient will be cured. For severe cases of diet recurrence, according to the deficiency, solidity, coldness and heat of the disease, the physiological characteristics of children, "the liver always has excess and the spleen always has insufficiency", can be supplemented or diarrhea, and it is advisable to dredge the liver and strengthen the spleen, eliminate food and stagnation. If the solid can be combined with the evidence of jiao Sanxian, Laptop or Hovenia and other food stagnation products, or even rhubarb, manganese nitrate diarrhea stagnation, so that there is no evil attached to easy to heal. Treating the disease and paying attention to other factors such as the effect of diet on the patient is the advantage of TCM treatment.

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