Risk factors of coronary heart disease

Type-d-concept person and Traditional Chinese Medicine.

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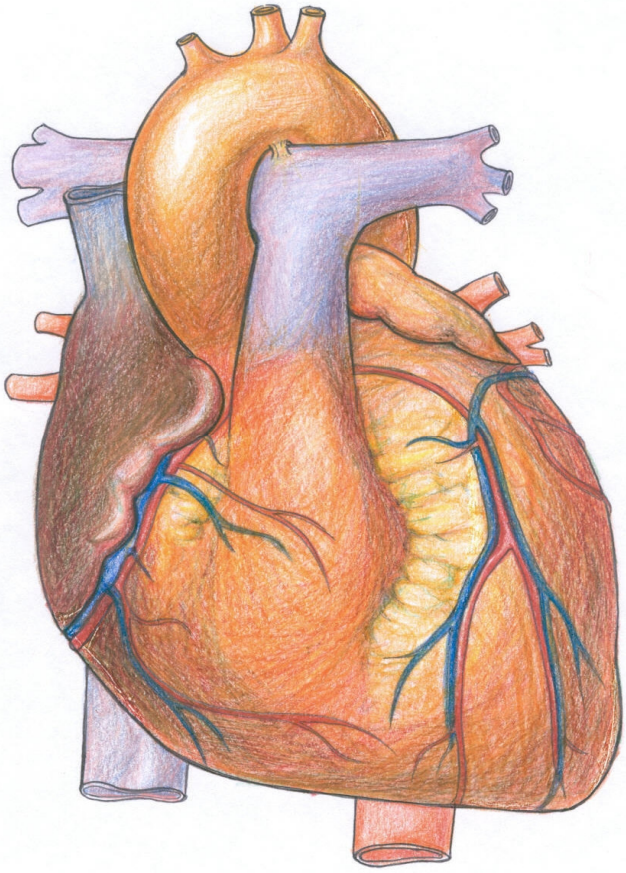
By Yolanda Knoop

Contents:

Introduction

In this final paper I want to make a translation from the western point of view at risk factors of coronary hearth diseases (CHD) to the traditional Chinese medicine (TCM) point of view. Especially a look at de risks of the d-type-person The d-type concept is a relationship between certain psychological properties of a person and an increased risk factor of getting a coronary hearth disease and after the first attack more change at mortality. The first part will be about the western definition and risk factors of getting coronary hearth disease in general. The second part is about the type-d-concept the way it is presented by Prof. dr. Johan K. L. Denollet I discus the holism of Chinese medicine and translate CHD to TCM pathologies Especially the mental aspects of every organ. is very imported to understand how to balance a person into better health and in this case to degrease the risk factor of having a CHD. Finally I will discus the points you could use to treat d-type persons.



1. Cardiovascular disease: prevention and control

Facts

- CVD made up 16.7 million, or 29.2% of total global deaths according to World Health Report 2003.
- Around 80% of CVD deaths took place in low and middle-income countries.
- By 2010, CVD will be the leading cause of death in developing countries.
- At least 20 million people survive heart attacks and strokes every year; many require continuing costly clinical care.
- Heart disease has no geographic, gender or socio-economic boundaries.

An estimated 16.7 million - or 29.2% of total global deaths - result from the various forms of cardiovascular disease (CVD), many of which are preventable by action on the major primary risk factors: unhealthy diet, physical inactivity, and smoking. More than 50% of the deaths and disability from heart disease and strokes, which together kill more than 12 million people each year, can be cut by a combination of simple, cost-effective national efforts and individual actions to reduce major risk factors such as high blood pressure, high cholesterol, obesity and smoking.

These are no longer only diseases of the developed world: some 80% of all CVD deaths worldwide took place in developing, low and middle-income countries, while these countries also accounted for 86% of the global CVD disease burden. It is estimated that by 2010, CVD will be the leading cause of death in developing countries.

Extent of the problem

The major CVDs include:

- Coronary (or ischaemic) heart disease (heart attack)
- Cerebrovascular disease (stroke)
- Hypertension (high blood pressure)
- Heart failure
- Rheumatic heart disease

Of the 16.7 million deaths from CVDs every year, 7.2 million are due to ischaemic heart disease, 5.5 million to cerebrovascular disease, and an additional 3.9 million to hypertensive and other heart conditions. As well, at least 20 million people survive heart attacks and strokes every year, a significant proportion of them requiring costly clinical care, which puts a huge burden on long-term care resources. CVD affects people in their mid-life years, undermining the socioeconomic development, not only of affected individuals, but families and nations. Lower socioeconomic groups generally have a greater prevalence of risk factors, diseases and mortality in developed countries, and a similar pattern is emerging as the CVD epidemic matures in developing countries.

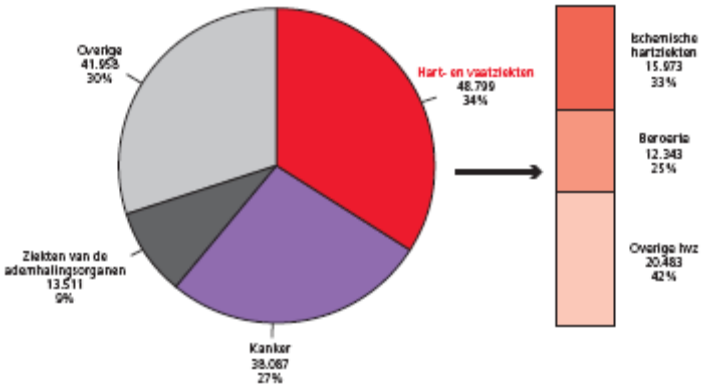
2. Coronary hearth disease

Heart disease is caused by narrowing of the coronary arteries that feed the heart. Like any muscle, the heart needs a constant supply of oxygen and nutrients, which are carried to it by the blood in the coronary arteries. When the coronary arteries become narrowed or clogged by fat and cholesterol deposits and cannot supply enough blood to the heart, the result is coronary heart disease (CHD). If not enough oxygen-carrying blood reaches the heart, you may experience chest pain called angina. If the blood supply to a portion of the heart is completely cut off by total blockage of a coronary artery, the result is a heart attack. This is usually due to a sudden closure from a blood clot forming on top of a previous narrowing.

1.1 The Key lifestyle risk factors for CHD include smoking, poor diet and lack of exercise. About 30% of the people in Holland smoke - over one in four people. Approximately 20% of CHD related deaths in men and 17% of CHD cases in women are attributable to smoking. The incidence of CHD is highest amongst people who are obese. Overall, 10% of men and 11% of women in Holland are now obese. Regular physical activity reduces the risk of cardiovascular disease mortality in general and of coronary heart disease mortality in particular. Physically inactive people have about double the risk of CHD.

Figuur 1

Doodsoorzaken in Nederland in 2002.



Bron CBS.

3. Type-d-concept

Years ago, when the psychologist Johan Denollet was first working with cardiac patients at a university hospital in Antwerp, Belgium, he noticed a paradox. Some heart-attack survivors remained cheerful and optimistic despite extensive cardiac damage. They joined eagerly in rehabilitation programs and adhered to them. Others grew discouraged. They resisted rehab, even after milder heart attacks, and spent most of their energy complaining. Denollet, now a professor of medical psychology at Tilburg University in the Netherlands, suspected there was something fundamentally different about these two groups of patients. So he set out to find a way of measuring it. The tool he developed—a simple, 14-question personality test known as the DS14—is now opening a new frontier in cardiology.

The questions of the 14- questions personality test are:

1. Do you make contact easily when you meet people?

2. Do you often talk to strangers?

3. Do you often feel inhibited in social interactions?

4. Do you find it hard to start a conversation?

5. Do you are a closed kind of person?

6. Do you would rather keep people at a distance?

7. When socializing, do you find the right things to talk about?

8. Are you often down in the dumps?

9. Do you often make a fuss about unimportant things?

10. Do you often feel unhappy?

11. Are you often irritated?

12. Do you take a gloomy view of things?

13. Are you often in a bad mood?

14. Do you often find yourself worrying about something?

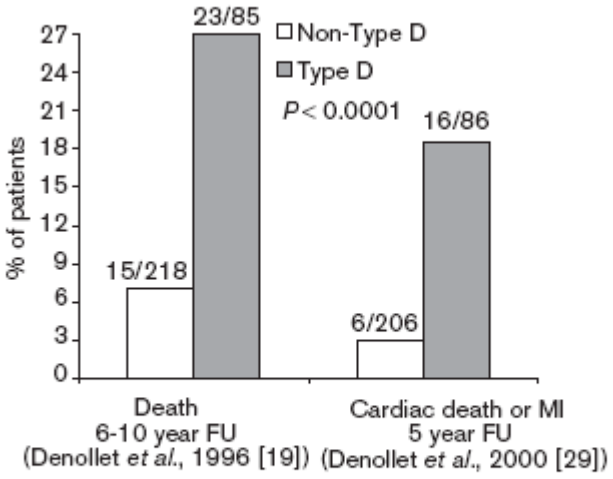
The possible answers are:

1. false
2. rather false
3. neutral
4. rather true
5. true

Results Accumulating evidence indicates that cardiac patients with the Type D personality are at increased risk for cardiovascular morbidity and mortality (odds ratios ranging from 4.1–8.9, P <0.0001) independent of standard cardiac risk factors. Type D patients are also at increased risk for psychological distress, clustering of psychosocial risk factors, impaired quality of life, and seem to benefit less from medical and invasive treatment. Preliminary evidence suggests that physiological hyper-reactivity and activation of pro-inflammatory *cytokines may be responsible for the detrimental effect of Type D personality on cardiac prognosis.

Conclusions there is an urgent need to adopt a personality approach in the identification of patients at risk for stress related cardiac events. Type D is a stable personality construct that may be of special interest not only in CHD, but in other chronic cardiac conditions as well.

Fig. 1



Type D personality as a long-term predictor of death and cardiac events in patients with coronary heart disease. (Number of patients are presented on top of each bar). FU, follow-up; MI, myocardial infarction.

*** Cytokines** are small secreted proteins which mediate and regulate immunity, inflammation, and hematopoiesis. They must be produced *de novo* in response to an immune stimulus. They generally (although not always) act over short distances and short time spans and at very low concentration. They act by binding to specific membrane

receptors, which then signal the cell via **second messengers**, often tyrosine kinases, to alter its behavior (**gene expression**). Responses to cytokines include increasing or decreasing expression of membrane proteins (including cytokine receptors), proliferation, and secretion of effector molecule

4. The holism of Chinese medicine

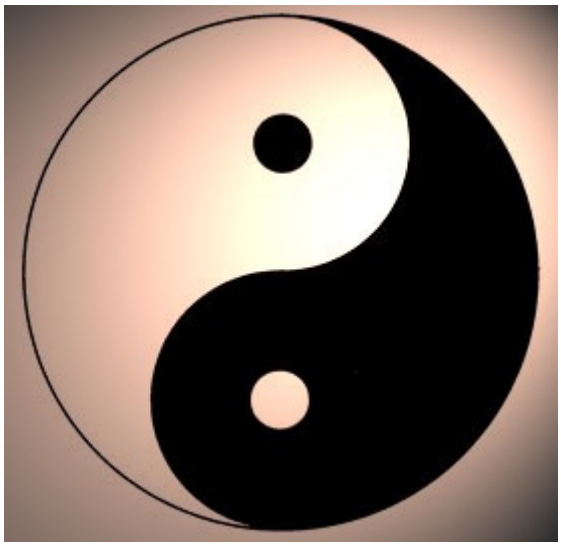
KEY PRINCIPLES

This is a "nature-based" medicine. Nature and the laws that govern the natural or "outer" world are used to help us understand the "inner" world, the world of the body. The person is seen as a microcosm of a holographic universe. Thus, Chinese medicine offers a cosmological perspective, one in which the person is viewed as an ecosystem that is embedded in, and related to, the larger ecosystem around us, and which is governed by the same basic laws.

Chinese holism takes different forms. It accepts a whole and integrated natural universe, pervaded by energy, called Qi; the substratum of the universe is also the substratum of human life which interacts with the natural environment. Qi manifests itself in a material-physical and in a spiritual form. Qi is in constant flux and assumes different forms. It circulates in channels, called meridians. It nourishes body, mind and spirit; its smooth flow ensures health, its obstructed flow spells disease.

The wholeness of body, mind and spirit, affirmed by Chinese medicine.

The spiritual dimension is an integral part of the meridians which represent the functioning of our organs. Any disturbance in the channels is liable to cause a physical, mental and spiritual disturbance. Acupuncture corrects the bodily, mental and spiritual aspects because it is one and not separate as in the Cartesian dualism of body and mind.



Properties of Yin and Yang

At the foundation of Chinese medical theory is the concept of yin-yang. Just as there are cycles of day and night, the ebb and flow of ocean tides, and the changing of the seasons, human health is also a function of ever-changing patterns of energy that are constantly seeking to be in harmony and balance. By describing how things work in relation to the universe and to each other, the yin yang theory establishes a dynamic thought process that can be applied to everyday life.

1. **Yin and Yang oppose each other.**
   Everything has an opposing yin and yang aspect. These aspects are mutually controlled and inhibited by each other, which results in a continuous state of dynamic balance. For example, heat can dispel cold while cold can reduce heat. If there is not enough heat, it will become cold and vice versa.

2. **Yin and Yang mutually create and depend on each other.**
   Both yin and yang cannot exist without each other or stand alone. They depend on each other for definition and can only be measured by comparing themselves to each other. For example, heat ceases to exist (yang aspect) if there is no such thing as cold (yin aspect).
   According to the yin yang theory, our physical body is closely related to its physiological functions. The activity (yang) of our body is nourished by its physical form (yin), and the physical form is created and maintained by the body's activity. They rely on each other to achieve a balanced state of health.
3. **Yin and Yang change and grow in a cyclic and balanced manner.**
   Yin and yang achieve a state of balance by mutual control and inhibition. The balance is neither static nor absolute, but is maintained within certain limits. At certain times, yin expands while yang diminishes. At other times, the opposite is true. The change of seasons illustrates this concept
4. **Yin and Yang transform into each other.**
   When one aspect goes to an extreme, it will undergo a reverse transformation into the opposite character. This sudden transformation usually takes place in a particular situation. For example, when summer reaches the hottest day (extreme yang), the weather begins changing in a reverse manner. Instead of becoming hotter, it starts to become cooler. When winter reaches its coldest day (extreme yin), the weather reverses its direction and becomes warmer. This transformation is the source of all changes, which allow both yin and yang to create each other. In the body, the pattern of yin yang transformation happens when excitatory and inhibitory functions transform into one another

9.

Coronary hearth disease translated to TCM

The Meaning of Symptoms in general

Symptoms are considered as part of a larger picture or pattern affecting the whole person. The practitioner seeks to connect seemingly unrelated symptoms and come up with a unifying explanation, in terms of what is going on with the person's qi on a global basis. This of course is opposite to the allopathic approach (conventional Western medicine) with its use of specialists for different symptoms and different parts of the body.

Perspective on coronary hearth disease

Aetiology and Pathology

Like most modern diseases are considered "qi deficiency" diseases , Coronary hearth disease is also caused by our not maintaining or supporting a harmonious internal ecology Our sedentary lifestyle further promotes the stagnation of our vital energy, with poor circulation and the accumulation of toxins in our tissues. Often due to chronic stress, mental irritation, nervous tension, getting angry easily; overindulgence in greasy, sweet and highly flavoured food or excessive alcohol. Also inappropriate clothing for weather changes -too few clothes in cold weather, too many in hot weather; imbalance between work and rest. All these

may cause deficiency of HE, LIV, SP and KID. The condition may involve Yin-Xu, Yang-Xu or Yin and Yang both Xu. Retention of cold, retention of phlegm, stagnation of Qi and stagnation of blood may hinder the blood circulation, further obstructive the yang of the chest, leading to pain. To summarise coronary heart disease is a syndrome of deficiency of anti-pathogenic Qi and excess of pathogenic Qi-Xu complicated with Shi. In TCM Coronary hearth disease comes within the category of Chest Bi Syndrome, with signs as palpitation and blue complexion.

The mental characters of the organ networks

Conclusion

When we take a second look at the questions of the 14- questions personality test in Chapter 2 from psychologist Johan Denollet we can say that the d-personality in TCM the people are with a Qi or blood stagnation and special the ones with a liver Qi stagnation. In TCM it is quit obvious that wehen a organnetwork is out of balance ther is also

Lecture By Dr. Su Xin-Ming

Coronary heart disease can lead to disturbance of blood supply to the myocardia and is a common disease occurring in middle-aged and elderly patients. It belongs to the category of cardio-vascular diseases in Western medicine and manifests clinically as angina pectoris, myocardial infarction, arrhythmia, heart [allure and enlargement of the heart.

In TCM this disease comes within the category of Chest Bi Syndrome net In the medical classics it was called 'real heart disease' or 'Jue heart disease' on the basis of the symptoms and signs. Palpitations are included in coronary heart disease in TCM. The treatment of coronary heart disease by acupuncture can be traced back to the Nei Jing. The essay on 'Jue Zhong Syndromes' in the Ling Shu describes the symptoms and signs of the disease. It says, "Jue heart disease presents with a blue complexion, like a dead person. The patient cannot breathe freely". In this chapter, Jue heart disease is also called hepatic cardiac pain. (Jue refers to Jue Yin, the LIV, which pertains to Wood and is associated with the blue-green colour). The essay prescribed points Xingjian LIV-2 and Taichong LIV-3. This is the earliest description of the treatment of coronary heart disease in Chinese medical classics. 'The Compendium of Acupuncture and Moxibustion' (Zhen Jiu Da Chang) written by Yang Ji Zhou in the Ming dynasty has a similar descripti on of the disease and suggests the following points for treatment: Quze P-3, Jianshi P-5, Neiguan P-6, Daling P-7, Shenmen HE-7, Taiyuan LU-9, Taixi KID-3, Tonggu KlD-20). These points are needled and moxa is applied to Xinshu BL-15 and Juque REN-14.

Aetiology and Pathology

Often due to mental irritation i.e. long-standing mental strain, nervous tension, getting angry easily; overindulgence in greasy, sweet and highly flavoured food or excessive alcohol; inappropriate clothing for weather changes -too few clothes in cold weather, too many in hot weather; imbalance between work and rest. All these may cause deficiency of HE, LIV, SP and KID. The condition may involve Yin-Xu, Yang-Xu or Yin and Yang both Xu. Retention of cold, retention of phlegm, stagnation of Qi and stagnation of blood may hinder the blood circulation, further impeding the yang of the chest, leading to pain. To summarise coronary heart disease is a syndrome of deficiency of anti-pathogenic Qi and excess of pathogenic Qi-Xu complicated with Shi.

Differentiation and Treatment

Treatment follows the method of treating Biao in acute cases and Ben in chronic cases. During acute attacks, treatment should be aimed at smoothing yang, resolving phlegm, circulating Qi and eliminating stagnation. Once the acute signs are relieved, deficiency of the zang-fu is revealed and Ben should be treated. When treating Ben, the reinforcing method is used - to consolidate the effects and prevent reoccurrence. During the emergency phase, both Western and Chinese (herbal) medicines are prescribed in combination with acupuncture. Acupuncture alone is not sufficient, although satisfactory results have been obtained using acupuncture and Chinese medicine. Pressing point

Neiguan P-6 with the fingernail can be effective to help relieve pain during attack. The Chinese herbal pill Guan Xin Su He Xiang is indicated in the acute stage with angina pectoris. The cure rate for acute attack of myocardial infarction has been improved in China by combining WM and TCM

A. ACUTE STAGE

1. Blockage by phlegm and stagnant blood

Clinical Manifestations

- cramping pain in chest and heart, fixed in location or radiating to left shoulder and arm
- severe stuffiness/stifling sensation in chest
- palpitations
- shortness of breath
- dizziness
- cough with profuse sputum

Tongue: Purple or dark-purple, or purplish spots, white sticky coating
Pulse: Wiry, Slippery

Analysis

Once phlegm is produced in the interior (from alcohol, excessive sweet greasy food etc. injuring SP function of transformation and transportation of fluids which accumulate to form phlegm) it impedes the yang of the chest, like cloudy weather preventing the sun from shining. Impairment of heart and chest Yang leads to impaired circulation of blood, and hence cramping pain of heart and chest Blockage of heart vessels by phlegm and stagnant blood leads to obstruction of the heart channel and radiation of pain along the channel. Retention of phlegm hinders the circulation of Qi in the chest giving rise to stuffiness, shortness of breath and palpitations. If the clear yang does not ascend and turbid yin does not descend, dizziness results. Obstruction of phlegm leads to cough with sputum.

Treatment principle:

Circulate Yang in the chest, resolve phlegm, clear the channels and activate blood circulation.

Points:

Feishu BL-13 Even method: to promote the lung function of dispersing, relieve cough, relax the chest and resolve phlegm.
Jueyinshu BL-14 These are the four main points for coronary heart disease.
Xinshu BL-15 Apply moxa to invigorate HE-Yang, or needle with reducing

. Chronic stress and tension deplete our inner resources and impair the flow of chi through our organ networks. Our poor diet denies the nourishment needed to keep the organ systems healthy so they can do their part in helping maintain balance. Our sedentary lifestyle further promotes the stagnation of our vital energy, with poor circulation and the accumulation of toxins in our tissues.

When our qi is depleted or blocked we become more vulnerable to infection by viruses, bacteria, or other organisms. And, we are more vulnerable to the degenerative processes that our society has come to associate with normal aging.

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