



Herbal treatment of chest pain

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Abstract

From ancient times the role of herbal medicine is significant. Several plants possess anti-cardiovascular activity. The important component is digitalis, reserpine, aspirin effective for chest pain. Natural plant treatment is used against arrhythmia, venous insufficiency, cerebral insufficiency, atherosclerosis, angina pectoris, hypertension, CHF. At home, people used different remedies to overcome the chances of chest pain. So, the new research indicates that many natural plant derivative formulations available in the market can be used against heart failure and other illnesses.

Keywords: chest pain, causes, symptoms, investigation, herbal treatment, home remedies, hypertension, congestive heart failure

Introduction

What is chest pain, its causes, symptoms, and investigation?

Angina or chest pain is the burning feeling which occurs when the supply of blood to the cardiac muscle is not proper. In the case of chest pain, the chances of a cardiac attack will increase. Usually, people suffering from chest pain are the risk of a heart attack in the future. The causes of chest pain are more but the initial factor involved is due to improper supply of oxygen to the heart muscle ^[1]. Chest pain aggregate in case of physical or mental exertion and pain relief after doing some rest.

During this pain, tightness, pressure and squeezing in the chest occur and the pain often spread to other areas like the neck, jaw, shoulders, arm, upper abdomen, and back. Different types of chest pain include stable, unstable chest pain, and variant chest pain ^[2]. Several factors have been involved that aggregate the risk of chest pain like cardiomyopathy, aortic aneurysm, pericarditis, myocarditis, pancreatitis, ulcers, irritable bowel syndrome, gastroesophageal reflux problem, gallstones, gallbladder inflammation, esophagitis, acid reflux, pulmonary embolism, pneumothorax, pneumonia, pleurisy, bronchospasm, bronchitis, asthma, obstructive chronic pulmonary illness, post-traumatic stress illness, panic problem, depression, anxiety. Common symptoms of chest pain include weakness, dizziness, cold sweats, vomiting, nausea, tightness and fullness of chest pain, sour taste, coughing, trouble swelling, and tenderness. For the investigation of chest pain, several tests such as electrocardiogram, blood test, x-ray, stress test, angiogram, and magnetic resonance images.

Herbal medicine and chest pain

Herbs become an important part of society because of their significant characteristics in medicinal and culinary applications from the beginning of human civilization. The role of herbal plants is effective and they are used in the formulation of many drugs against acute and chronic illnesses. These plants include *Rauwolfia serpentina* used for the preparation of reserpine, *Salix alba* used to synthesize

salicin, *Digitalis purpurea* used for digitoxin extraction, and *Ephedra sinica* used for ephedrine production ^[3]. Several components are present in the plant extract which act as adrenergic agents. In the early 20th century much progress is occurring in the field of plant derivative medicine because of their beneficial effects on the community and industrial applications.

All around the world people prefer these natural remedies due to their fewer side effects, social and economic benefit. Now it's become a field of interest for research and development across the globe ^[4]. The role of physicians in this field is significant. They are known for each and every aspect of formulation, significance, indication and contraindication ^[5]. In this research investigation, we studied plant derivative medicine which is significantly used against cardiac problems.

In case of arrhythmia

Abnormal pulse and palpitation are the unique properties of arrhythmia, various Chinese natural drugs have been identified which possess anti-arrhythmic effects, such as Xin bao, Zhu ci wan and many more ^[8]. The component of Xin bao effectively works to enhance the excitability and stimulation of sinoatrial node ^[9]. By using Xin bao those patients who are suffering from chest pain, palpitation, and dizziness get improvement in their health.

Congestive heart failure

Several herbs contain a glycosidic cardioactive component which is used to cure heart-related problems. Digitoxin is one of the significant components used for the treatment of congestive heart failure. This component is obtained from the plants like *Digitalis lanata*, and *Digitalis purpurea*. So, cardiac glycoside dose gives to the need of the patient because of their low therapeutic index. Some other cardiac glycosides sources include *Urginea maritima*, *Cascabela thevetia* (syn: *Thevetia peruviana*), *Strophanthus kombe*, *Strophanthus hispidus*, *Selenicereus grandiflorus*, *Pulmeria rubra*, *Nerium oleander L*, *Helleborus viridis*, *Helleborus niger*, *Cryptostegia grandiflora*, *Convallaria majalis*, *Cheiranthus cheiri*, *Cerbera manghas*, *Carissa spectabilis*,

Calotropis procera, *Asclepias fruticosa*, *Asclepias curassavica*, *Apocynum cannabinum*, *Adonis vernalis*, *Adonis microcarpa* [10, 11].

In case of hypertension

Hypertension is one of the important factors which aggravate the chances of chest pain. To minimize the risk of chest pain it is necessary to treat hypertension. A few herbal plants and their derivatives are effectively used to manage hypertension. Alkaloid reserpine is a rich source of the root of *Rauwolfia serpentina*. the role of this root in the management of hypertension is significant [12, 13, 14]. *Stephania tetrandra* is another important herb used to treat hypertension [15].

In the case of angina pectoris

In herbal medicine, some plant derivative medicine is effective against cardiac problems and used to cure angina. *Crataegus* species are among the most effectively used against angina. The plant species include; *Crataegus monogyna*, *Crataegus oxyacantha*, and *Crataegus hawthorn* which is significant against the CVS system. The fruit, flowers and leaves of this plant contain active medicinal components like catechins, flavonoids, procyanidins and oligomeric. These components show anti-oxidant characteristics [16, 17, 18, 19].

Chest pain and home remedies

Home remedies are effective against various disorders. Although these remedies don't show quick responses, they work to enhance the health of people. Doing exercise, improving lifestyle, cut off from smoking reduces the risk of heart pain. Different supplements are used providing a healthy heart such as omega-3 fatty acid. It is one of the good supplements used to reduce the chances of arrhythmia, atherosclerosis, and triglyceride level and maintain blood pressure. Pomegranate juice is one of the best fruits for the heart patient. because it reduced the level of low-density lipoprotein in the blood. Capsaicin is one of the significant chemicals which is good for heart-related problems, it reduces the level of blood sugar, blood pressure, metabolic syndrome, atherosclerosis, and also reduces the thickness of muscles. Garlic is also a good source to reduce the chances of chest pain by lowering plaque formation. Coenzyme Q10 also shows significance to lower the risk of heart problems. Ginger possesses anti-oxidant and anti-inflammatory properties which help to maintain blood pressure, reduce cholesterol levels, also decrease clotting formation. Curcuma is best for improving the level of good cholesterol. Alfalfa is one of the best sources which decreases the level of bad cholesterol. Holy basil is a good traditional herb used to cure stress and its associated factors. Fenugreek, almond, hot water, cold pack, apple cider vinegar, and veggies are among the home remedies also used against chest pain, [20, 21, 22, 23, 24, 25, 26, 27, 28].

Conclusion

From the above discussion, it was summarized that role of natural plants and their extracts, and plant formulation are effective against chest pain. A number of plants' component are effective but the roles of digitalis, digitoxin, flavonoids, and alkaloids are significant. Furthermore, several home remedies used to reduce chest pain where also identified.

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