Heart Therapy

Summary

The possibility of Crataegus therapy is pointed out and the symptomaticology of several other plant substances affecting the heart is explained. As a result of this it can be seen that therapy of cardiac and circulatory diseases not yet requiring heart-glycosides can be carried out in practice with the cardiac therapeutic drug, Cralonin and the circulatory therapeutic drug, Aurumheil. These treatments are particularly suitable for long-term therapy, where no side effects need be expected.

The topic of biological cardiac therapy is so extensive that it cannot be dealt with here. Only energy supply and utilization and long-term therapy will be dealt with in depth. The object of any measure in dealing with a cardiac disease is to put oxygen supply and oxygen requirement into the correct balance.

Oxygen consumption is already maximum during normal heart action, there is therefore no reserve available. The increased oxygen requirement under exertion has to be compensated by increased supply.

The disproportion between oxygen supply and oxygen requirement is favourably influenced by Crataegus in particular, the main active principle of Cralonin and Aurumheil. Crataegus may be regarded as a standard cardiac treatment nowadays with a specific myocardial and coronary effect.

Crataegus oxyacantha L.,

Crataegus eliminates disturbances of the aerobic and anaerobic myocardial metabolism, has an oxygen-saving effect and improves oxygen utilization, increases the coronary flow volume, stimulates the blood and oxygen supply of the myocardium and tones the heart due to positive inotropic properties. The regulating effect of Crataegus on the blood pressure is evident, and finally, it is known to have a favourable influence on cardiac arrhythmia.

Crataegus, or hawthorn, belongs to the family of Rosaceae, and grows in Europe and Asia. The ripe fruits, leaves and blossoms are used.

The essential active principles of hawthorn are the coronary and myocardial effective flavones and flavonoids such as quercetin, hyperoside and vitexin-rhamnoside. Monomer polyhydroxyflavonols of the catechu and epicatechu types should further be mentioned. There are already numerous publications on their chemical constitution and pharmacological effect. In recent years, chemical research has been especially concerned with catechus, in particular with their polymerization products. New biologically active substances were thus discovered, the oligomer procyanidines. These contain 2-8 of the catechu units mentioned in C4/C8 linkage.

According to the pharmacological examination, the flavone derivatives would appear to be the main active principles of Crataegus. Crataegus contains no digitalis substances. From the biochemical point of view, its ability to function as a redox system would seem important.

As an explanation for their pharmacological effect, it is assumed that, owing to their ability to form complex com-
nds with protein, the flavone derivatives attack the cell and act as the prosthetic group of oxygenase and take an active part in the oxidative metabolism of the myocardium.

In this connection the experiments with the enzyme on malachite green on rat hearts are particularly interesting. By administering Crataegus it was possible to prove a measurable decrease in the damaging effect of this dye on the lactic cell metabolism. The survival periods for the rats could also be significantly lengthened. As a result of these experiments there can be no more doubt that the main active ciples of Crataegus have an important influence onabolic processes in myocardial metabolism and contribute to an improvement in remediating disturbances in energy generation and utilization in the heart as well as in oxygenation in the heart muscle.

During a series of experiments on the oxygen-saving effect of a flavone derivative isolated from Crataegus on the same animal, an increase in the oxygen in the venous blood could be observed while arterial oxygen saturation remained constant. No measurable changes in the circulatory size of motric an animal occurred. In a rat swimming experiment to prove increased performance effect, the treated rats showed a considerably longer swimming period compared to the untreated animals.

Other authors tested the effect of Crataegus on heavy workers with a healthy circulation, who were subject oxygen deficiency respiration during the experiment. The influence of Crataegus on the circulation anametrical experiments proved that circulatory capacity adapted in an nomic manner to the strain. The gas metabolism test revealed a reduced oxygen consumption, a reduction in the output and an improvement in the arterio-venous gain difference with a lower strain on the heart in respect to volume capacity.

Experiments with Crataegus on the Langendorff heart demonstrated the expansion of the coronary vessels and an increase in myocardial perfusion.

The subjective and objective symptoms and modalities of Crataegus are: palpitations and restlessness of the heart, dache, insomnia, nycturia, dizziness, breathlessness as a result of pre-insufficiency in cases of arteriosclerotic symptom complexes in geriatrics. Normalizing effect on both hyperventilation and hypotension in the former can be objectively attained, not always in the latter, but an improvement in subjective complaints can nearly always be achieved. A d effect in light cases of cardiac stenosis. In severe attacks angina pectoris only effective in conjunction with nitroergine and with neutral therapeutic measures; on the other hand, excellent for prophylactic interval treatment to ease heart blood circulation and thus reduce the tendency to attacks.

The principal indications of Crataegus are: myasthenic heart, pre-insufficiency, essential and arteriosclerotic hypertension, coronary insufficiency, interval treatment to press angina pectoris, post-infectious and focal-toxic myocardial damage, to sensitize the myocardium to digitalis glycosides, especially in case of glycoside-refractory conditions or glycoside habituation. Arteriosclerotic symptom complex. Cerebral sedative. The increase in the reaction of the myocardium to heart glycosides arising from the effect of Crataegus offers many different fields of application. The infective-toxically damaged myocardium reacts much better and with much more tolerance to Crataegus than to glycosides.

**Spigelia anthelmia L.**

the worm-herb, belongs to the family of Loganiaceae. Spigelia is native to Central and South America. The dried herb is used. Spigelia contains an alkaloid, Spigellin, which acts poisons orally, also myricin, resins, tanning substances and essential oil. The plant was used as an anthelmintic in its native countries and was introduced to Europe as such in 1754.

Spigelia acts specifically on the heart, particularly pericardium and endocardium, the trigeminal nerve and on the central nervous system.

The subjective and objective symptoms and modalities are: periodically occurring pain with a shooting, particularly piercing character. States of great excitement, fear. Strong palpitations with acute pain at the apex of the heart, in the pectoral area and projecting into the left arm. Extra-systole. Extremely effective for acute inflammatory processes involving the pericardium and endocardium and with rheumatic effect on the heart. Neuralgia pain affecting one side, usually the left but sometimes the right side, in the area of the temple, the eye and the frontal bone. Rheumatic pain of the muscles and joints.

The main indications of Spigelia are: pericarditis and endocarditis rheumatica, cardiac stenosis, migraine, neuritis and neuralgia, particularly of the entire trigeminal nerve with Zillar neuralgia. Infra and supra orbital neuralgia.

**Kali carbonicum,**

potassium carbonate, aerated potassium compound, tartrate salt, potash, has the chemical formula K₂CO₃. Organ specialties to be mentioned are the vagus nerve, central nervous system, heart and circulation, the respiratory tract and the gastro-intestinal tract.

The subjective and objective symptoms and modalities are: weepy, depressive, easily frightened, anxious. Excessive irritation of mucous membranes, the respiratory and digestive tracts and of the female sexual organs. The mucous membranes become dry causing sharp pains. Tendency to oedema, frequently with lacrimal sacs at the upper eyelids. Cardiac anxiety and twinges, dyspnea and exhaustion after slight exertion. Chronic nasal catarrh, dry cough, flatulent colic, constipation with unsuccessful attempts to evacuate the bowels. Lack of libido, weakness and pain in the lumbar region and in the hip joint.

The principal indications are: vagotension, states of exhaustion particularly after infectious diseases, weakness of the cardiac muscle, tendency to oedema, amenorrhea, geri-
atric dyspepsia, urine incontinence in females, chronic catarrh of the upper respiratory tract, lumbago, coxalgia.

Crataegus, Spigelia and Kali carbonicum are contained in Cralonin.

Cralonin

The following properties and fields of application for the heart treatment Cralonin can be seen from the preceding remarks:

Crataegus is particularly effective on hearts with a damaged muscle, overstrained hearts or with a reduced capacity as a result of the physiological aging process. Crataegus increases the coronary flow volume and stimulates the blood and oxygen supply to the myocardium and has a regulating effect on blood pressure. This effect is synergistically assisted by Spigelia anthelma (sharp pains radiating to the neck and left arm; irregular pulse) and by Potassium carbonate (arrhythmia, cardiac muscle weakness, thorax pain on the right side), whereby the potassium deficiency of the aging cardiac muscle cells is favourably influenced.

Indications for Cralonin are: Basis therapy for cardiac and circulatory disturbances. Geriatric and strained heart. Coronary blood circulatory disturbances. Degenerative, toxic and (post-) infectious myocardial weakness. Rhythm disturbances. Preservation therapy in cases of compensated myocardial diseases, (re-) infarction prophylaxis. Coronersum.

In addition to the heart treatment Cralonin, the circulatory regulating treatment Aurumhegel should be mentioned in this connection. In addition to Crataegus it contains:

Aurum muriaticum natronatum, gold sodium chloride with the chemical total formula Na(AuCl)2H2O.

Aurum muriaticum natronatum acts specifically on the central nervous system, heart and vessels, connective tissue and glands.

Valeriana officinalis L.,
valerian, with its specific effect on the central nervous system, the peripheral nerves and especially on the vascular nerves.

Spartium scoparum,
with the botanic name Cystisus scoparius LINK, gorse, belonging to the family of Leguminosae with various flavones and alkaloids as active principles and a specific effect on the central nervous system, the cardiac muscle, the cardio-stimulation relay system and the kidneys.

Convallaria,

with the botanic name Convallaria majalis L., lily-of-the-valley, belonging to the family of Lilaceae, a heart glycoside plant of the second degree, with a specific effect on the cardiac muscle and the cardio-stimulation relay system and the peripheral circulation.

Arnica,

with the botanic name Arnica montana L., mountain tobacco, belonging to the family of Compositae, with essential oil, tanning substances and catechu as active principles. Arnica acts specifically on the heart, the vessels, connective tissue, muscles, gastro-intestinal tract and the skin. The good toning vascular and cardiac effect should be emphasized here.

Aurumhegel

The properties and fields of application are: Aurumhegel improves the coronary and myocardial capacity, has a normalizing effect on blood pressure, economizes cardiac and circulatory action and has a tranquilizing and compensating effect on vegetative-neurally disturbed functions of the cardio-vascular system. Aurumhegel can also be administered to infants.

The indications for Aurumhegel are: vegetative functional cardiac and circulatory disorders, circulatory hypertension, cardiac rhythm disorders, coronary blood circulation disorders, myocardial damage. Assisting the cardiac-circulatory function in cases of fever, after infections, in stress situations caused by the weather (e.g. swollen ankles in summer).

Summarizing the above it can be said that:

The heart treatment Cralonin and the circulation regulating treatment Aurumhegel enable a practical therapy of cardiac and circulatory diseases which do not yet require heart glycosides. The treatments are particularly suitable for long-term therapy.

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