

# “Ouabain”: the wasted opportunity

“**Ouabain**” is an additional excellent medicine for the heart that is sadly almost unknown. Ouabain comes from the seeds of a beautiful blooming liana that is mainly found in tropical Africa. **Ouabain decreases the frequency of heart seizures**; this can be observed in daily practice and has also been sufficiently scientifically proved. **It allows patients with heart weakness to breathe better and increases their physical capacities, even in severe cases. It undoubtedly increases the well-being of patients after a heart attack. Ouabain plays an important role in the prevention of heart attacks.**



## A few illustrative examples:

In 1984, about 150 heart patients suffering from attacks of angina pectoris were treated with ouabain capsules in a clinic in West Berlin. Some had been advised to undergo bypass surgery due to the severity of their illness. The usual medication with beta blockers, calcium “antagonists” and nitrates was stopped after detailed discussion with the patient, before treatment was commenced with ouabain. After one week, 122 patients were free from anginal complaints, and after two weeks this applied to 146 of the 148 patients. The unpleasant side-effects of the previous medication such as headaches, dizziness, lack of appetite and circulatory problems had disappeared. Only two patients had discontinued the ouabain treatment due to intestinal problems. Objective documentation of the success of the treatment was provided by the patients’ ECGs (68).

In the offices of general practitioners and internists in the Rhineland patients suffering from typical attacks of exertional angina were treated with either ouabain capsules or a placebo. It was a so-called “double-blind” study, meaning that neither the doctor nor the patient knew which substance had been administered. Exertional angina means that typical heart symptoms such as narrowing of the chest and heart pain regularly result when a patient exceeds a certain physical exertion, such as during climbing stairs or cycling on an ergometer. These complaints are accompanied by typical alterations in the ECG. **After 2 weeks, the patients who had taken ouabain showed a clear decrease in the number of heart seizures during**

**daily activities and their physical capacities had increased. Objective proof was provided by an improvement in the patients' ECG recordings, and their subjective well-being was greatly improved.** In contrast, there was no notable improvement in the placebo group (69).

I would like to mention research carried out earlier at the University Clinic in Freiburg, Germany. In this investigation, it was found that in patients with angina pectoris who had taken one dose of concentrated ouabain drops on the tongue, the stroke volume and performance of the heart increased significantly after half-an-hour. In three-quarters of the patients there was also an improvement in the ECG, indicating that the metabolic disorders of the heart muscle had disappeared. **Please note: this was after one dose of ouabain drops, after only half-an-hour (70)!** The author, Prof. Sarre, was the director of this well-known clinic at the time.

**Change of location:** At the beginning of the 1970s, in a large coal mine in the Ruhr area of Germany, with 1800 miners working underground, there was an average of three deaths by heart attack per year. In emergencies it was difficult to get adequate help to the miners in the complex gallery system of the mine. In 1974, one of the company doctors decided to provide workers, who developed heart symptoms, with emergency ouabain capsules that were to be administered by trained helpers. During the next 10 years, there were only 2 deaths by heart attack instead of the around 30 deaths, whereby in one of the cases the patient could not be given ouabain due to a serious accident that occurred at the same time in the same working zone of the mine (71). **Ouabain made it possible to drastically cut the rate of death by heart attack in this large coal mine and almost reduced it to zero. This is exemplary!**

During a heart seizure, a patient will routinely take his “nitro spray” or bite on a “nitro capsule”. If there is no heart attack, the “nitro” absorbed via the mucous membranes of the tongue and throat is a fast and reliable aid in relieving the seizure. In the 1970's, at the above-mentioned clinic in West Berlin, all angina patients that were delivered to the hospital were given ouabain bite capsules. 85% of these heart seizures were relieved within a few minutes by taking these bite capsules. The capsules do not help if the patient has already had a heart attack (72).

Ouabain is particularly helpful to patients with heart weakness; these are patients who struggle for breath at greater or even the slightest physical exertion. **Ouabain was the leading medication for treating heart weakness in Germany for over half a century.** While in the 1990's the world turned its back on ouabain due to new medication such as “ACE inhibitors”, a very precise study carried out in Milan again showed how patients with even the most severe heart weakness benefit from ouabain with regard to their physical capacity. (73).

I myself have treated my heart patients with ouabain for a long time. I give ouabain bite capsules or drops to patients with heart seizures, as well as for the prevention of heart attacks and heart weakness. And it has been very successful. Most patients say that they feel better after a few days, that their chest feels freer, they feel less anguished and have greater physical capacity. This is also regularly reported by patients who had never before heard about ouabain and who did not have exaggerated expectations due to their research on the internet. Ouabain reduces high blood pressure, and, in my opinion, it has clear psychological effects: it calms, patients have more vitality and their moods are often improved. **A notable number of patients, who had taken ouabain for a long time following a heart attack, attribute their survival and their continued vitality and freshness to ouabain.**

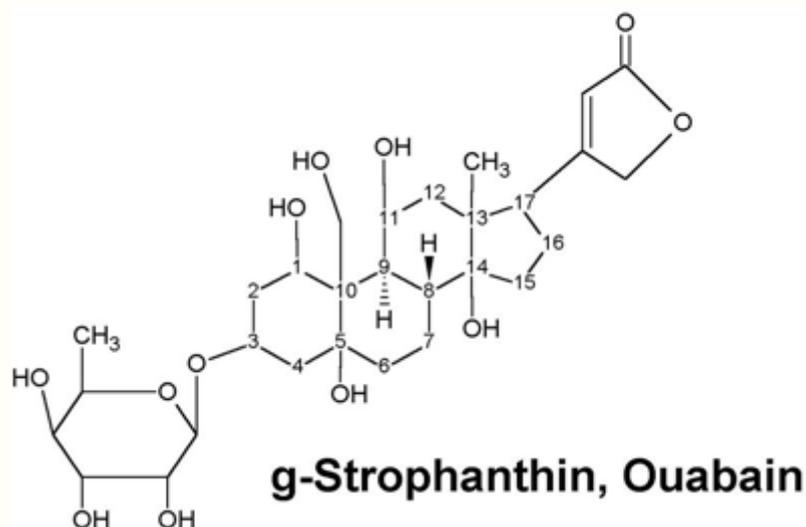
## **Ouabain is, however, not a universal remedy for all heart diseases.**

Ouabain is not suitable for the treatment of diseases of the heart valves, inflammation of the heart muscle, or many other forms of heart illness. Ouabain can be used to treat heart seizures, heart weakness, and above all, ouabain is very valuable in preventing heart attacks and death by heart attack.

## **Ouabain: a gift of nature**

Ouabain, in a biochemical sense, belongs to the group of so-called “cardiotonic steroids”. “Cardiotonic steroids” that benefit the heart are widely found in the plant world. They are contained in foxgloves (“digitalis”), species of the strophanthus group of plants, in the sea onion (“scilla maritima”), in lily-of-the-valley (“convallaria”), just to name a few examples. They are found in India, in the bark of the arjuna tree; an extract, “terminalia arjuna”, is very important in the treatment of heart patients in Ayurvedic medicine.

Strophanthus plants are a species of liana. Their strong poisonous effect leads them to their use as arrow poison in Africa. **On one of David Livingstone’s expeditions in Southeast Africa 150 years ago, the rapid effect of ouabain seeds on the heart** was discovered by the doctor and botanist John Kirk, when by mistake, he used a toothbrush contaminated with this arrow poison. He tasted the bitterness of the ouabain seeds and noticed that his pulse, which was rapid due to fever and heat, suddenly slowed down (86). The active ingredient “strophanthine-G” was extracted for the first time from the African tree “acokanthera oubaio”, which led to the name used in English “ouabain” instead of the German “strophanthin” (87).



In the second half of the 19th century, a „ouabain tincture“, an alcohol-based extract from ouabain seeds, was used in England and then in other European countries to treat heart patients. In 1906, ouabain was first used intravenously. In the 1930’s, E. Edens, the most renowned German heart specialist of the time and Nobel Prize winner, made a break-through with this intravenous application of ouabain, when treating heart weakness, heart seizure/angina pectoris and for the prevention of heart attacks.

**It was, however, impractical to inject ouabain on a daily basis in doctors’ office, this was mainly carried out in clinics.** After the Second World War, “cardiotonic steroids” became

available more practically as a tablet. It was found that the digitalis compounds “digoxine” and “digitoxine” are absorbed constantly and almost completely by the body, whereas only a certain and individually varying amounts of a dose of ouabain are absorbed by the intestines. Therefore, ouabain decreased in importance, and was largely ignored by academic medicine and the pharmaceutical industry.

## The scandal

Nevertheless, due to the initiative of an internist from Stuttgart, B. Kern, ouabain capsules were still produced and were in use in Germany. Kern was very successful in preventing heart attacks using this medicine; with the result that the lay press claimed ouabain to be “the wonder drug” for heart patients that was being overlooked by conventional medicine. Kern combined his commitment to ouabain treatment with radical criticism of the classical theory on coronary heart disease (13).

Medical associations felt they had to act due to the agitation in the press. Dr. Kern was forced to appear before a medical council. This turned into a “tribunal”, where he was put down in a harsh and unpleasant manner and was then outlawed by the powers that be. **This was a very dark chapter in the history of German medicine.** As a result, it was claimed that the intake of ouabain capsules has no effect and that ouabain in any form has damaging effects in heart seizures or in trying to prevent heart attacks. Today, only a very few interested doctors in Germany know of the healing properties of ouabain.

## Crucial differences

**Why damaging?** “Cardiotonic steroids” such as digitalis preparations increase the performance of the heart, in that they block a particular enzyme in the cell wall, the so-called natrium pump. With every muscle contraction and every nerve impulse, natrium flows into the cells of the heart muscle and has to be quickly removed, so that the cell can again function normally. A blockade of this pump causes the level of natrium in the cell to rise artificially, thus resulting in raised calcium levels, whereby increasing the vigour of the heart. This is, therefore, essentially a toxic mechanism that increases the oxygen consumption of the heart.

As heart seizures are associated with a lack of oxygen, “cardiotonic steroids” are not suitable for treating an attack of angina pectoris. **Accordingly, ouabain would not be suitable for the treatment of heart seizures, were it not for the differences that exist between individual “cardiotonic steroids”.** Ouabain is soluble in water, so that ouabain can only act on the surface of the cell; whereas, digitalis compounds are soluble in fat, so that they can penetrate and also have effects inside the cell (74). This is only one example. It is very important that ouabain in small doses does not block the natrium pump, but actually stimulates it and contributes to stabilization of the cell environment, in contrast to digitalis compounds at normal doses (75,76). Ouabain increases the heart’s performance, without increasing the oxygen consumption (77). And very important: when the heart metabolism is whipped up by adrenaline, then ouabain reduces the oxygen consumption of the heart (78). **In such a situation, as is the case during a heart seizure, ouabain has an oxygen-saving effect.**

## The mode of action

**The reason for this: ouabain stimulates the “PNS” and inhibits the “SNS”.** The leading German pharmacologist of the time, H. Gremels, had, as early as the 1930’s, clearly shown that ouabain drastically increases the effects of the PNS on the heart within a few minutes (up to a maximum of 1000 times greater). The effect of the SNS is reduced; and even the smallest doses of ouabain have the full effect (78). In the 1980’s, it became clear that in low doses, ouabain and also digitalis compounds stimulate parasympathetic activity and inhibit the sympathetic nervous system; a medium dose weakens these effects, and a high dose, such as necessary to inhibit the natrium pump, will reverse the effect and stimulate the SNS (79,80). Ouabain acts at low doses; it is quickly taken up, has a rapid effect and is rapidly eliminated from the body. Digitalis acts much more slowly, remaining in the body for a long time; therefore, if taken regularly, a high level of these drugs is quickly established in the blood.

**Ouabain directly stimulates the PNS center in the brain (79).** Furthermore: the nerves of the PNS, which control the individual functions of the organs such as the heart, release a particular “transmitter” substance, “acetylcholine“ (“ACh”), from the nerve endings. Ouabain molecules stimulate this release of “ACh” (81,82). After administration of ouabain there is a clear increase in “ACh” levels in the heart (83), thus acutely increasing the influence of the PNS on the heart. At the same time, ouabain activates various complex signal pathways that protect the cells of the heart muscle; these mechanisms are a focus of current research (84,85).

Reduced PNS impulses play an important role in heart seizures and heart attacks, in the case of chronic heart weakness, and probably also in sudden deaths caused by heart arrhythmias. It is exactly these impulses that are stimulated and increased by ouabain. **Ouabain is the ideal gift of nature to people with heart disease.**

**Ouabain in low doses, such as in capsules or drops, which are absorbed via the mouth or the intestine, has many good effects:** the energy stores of the heart muscle are filled, but in particular, the highly increased metabolism of the heart during a heart seizure is slowed down, preventing acidification and further damage. Mind balance and relaxation are promoted, and as is well-known, strength develops from calm. Most of all, ouabain has an inestimable value in the prevention of heart attacks.

**For twenty years it has been known that ouabain is produced in the adrenal glands and brain of the human body (88). Ouabain is a hormone, a natural product of our body.** Hormones are signal substances that are transported in the blood throughout the body, and even the smallest amounts have a great variety of effects. This explains why ouabain has therapeutic effects even at very low concentrations. By taking ouabain at a low dose one is not subjecting the body to a foreign, unnatural substance.