## Let your Computer Read this document for you:

**Click View**

**Click Read Out Loud**

**Click Activate Read Out Loud**

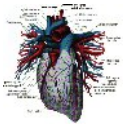
**Then click View again and select**

**Read Out Loud**

**Read this Page Only**

**or**

**Read to the End of Document**



# LECTURE IV.

## E.M. HALE, M.D.

### ANGINA PECTORIS.

**Nature of the Disease — Symptoms — Pathology — Pathological Relations — Its Frequency — Prognosis—Cause of sudden death in — Diagnosis — Treatment.**

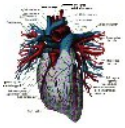
GENTLEMEN: Of all affections of the heart this is the most painful and distressing. While some authorities — among whom is Dr. Watson— would place this disorder among the organic diseases, the majority consider it a functional disease. Watson thinks it is not neuralgia, because the paroxysms are excited by bodily exertion and mental emotion, and because it is so frequently and suddenly fatal. But Dr. C. Handfield Jones disposes of this by citing the commonly observed fact that many of the neuralgia are excited and aggravated by similar causes. Dr. Jones, after summing up the opinions of various authors, expresses himself in these words, "It is thus invariably a neuralgia, whose sole and constant seat is in the cardiac plexus." [1]

This affection is characterized by paroxysms of intense pain, emanating from the region of the heart, and extending in various directions, often into the left shoulder and down the arm, accompanied by indescribable anguish, a sense of suffocation, and a feeling of impending death. The pain radiates into both sides of the chest, into the back, upper extremities—generally the left—and sometimes extends into the lower extremities. The pain in the upper extremity does not always extend to the hand, sometimes it ends at the shoulder, at other times in the elbow, and the pain is occasionally felt only in the forearm. It commonly seems to follow the course of the nerves, and is felt all over the affected extremity, even to the ends of the fingers.

The pain is attended by a feeling of numbness, or as if the limb was paralyzed. A rare symptom is pain and numbness in the testicles. Hyperesthesia, or tenderness, where the pain is felt, has been observed.

This is one of the affections that are purely paroxysmal, a strong proof of its neuralgic nature. The patient is seized suddenly, often during motion, as walking up-hill, or against a strong wind, or when quickly turning in bed.

[1] On Nervous Disorders, p. 212.



From the first instant of attack all motion seems impossible. He seizes hold of some firm support, or fixes himself in some way immovable, until the paroxysm passes off.

Besides the pain, the feeling of suffocation alarms the patient, and he feels as if death was impending. Dyspnea is not always present, but the breathing is often suspended for an instant, or restrained by an act of the will, for fear of increasing the pain, but the *ability* to expand the chest and breathe regularly is not impaired. Speaking is often impossible, or difficult, as it seems to aggravate the pain.

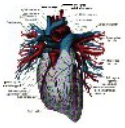
Palpitation is often present; the action of the heart, in some instances, intermitting and irregular; the pulse strong or feeble, and sometimes *very slow.* The countenance is pale and expresses terror, anxiety, and distress; a death-like complexion and haggard features suddenly taking the place of an appearance of health. Lividity is sometimes observed. The surface is cold and bathed in cold sweat. The faculties of the mind remain unaffected or nearly so. After an attack a sense of prostration is present, and sometimes, as after other nervous attacks, a free secretion of pale limpid urine.

The paroxysms differ in the frequency of their occurrence, duration, severity, etc.

They may recur every few hours, days, or weeks, and often years may elapse between them. They are sometimes very mild at first, and afterwards increase in severity; or the first may be very severe. They may last for a few moments or seconds, or continue several hours. They will often subside as suddenly as they commenced; at other times the relief is gradual.

You must not get the idea that they only occur after some physical or mental excitement, for they often occur at night, during sleep. I have known persons who were thus affected, rendered so fearful of going to sleep as to make life almost insupportable. In one case a fearful dream seemed to the patient to be the exciting cause.

You will naturally inquire what is the *pathological character* of this affection, also its pathological relations. As I have said, I believe the affection is generally a form of *neuralgia.* The character of the pain proves this. It has been ascribed to *spasm,* but a spasm of the heart, lasting as long as an ordinary paroxysm of angina would destroy life; besides, the heart's action is seldom, if ever, arrested.



The pathological *relations* of angina are interesting. Flint says, “It involves, in a large proportion of cases, the existence of some organic affection of the heart and aorta," and adds that the lesions found "do not agree invariably in any appreciable morbid alterations." Valvular lesions may be present or wanting. Calcification of the coronary arteries is sometimes present. Fatty degeneration has been observed. It has been asserted that a "weakened heart" is essential to the presence of the disorder, but this theory is disputed by both Flint and Jones. While I do not believe that a *weak* heart is a necessary condition, it is more than probable that a condition is often present which is similar to *myalgia* elsewhere in the body. In other words, cardiac myalgia may simulate, or coexist with, angina.

As before remarked, angina pectoris is a very rare affection. In 338 cases of organic disease of the heart, Flint found it to exist in 15 only. That it occurs more frequently *with* than without organic disease seems proven.

The *causes* of this disorder are at best obscure. It has been supposed to arise from the rheumatic or gouty diathesis, but this supposition *is,* not tenable. Nor can it be said to arise from dyspepsia. Trousseau considers angina a form of epilepsy, but this seems to me only a fanciful idea.

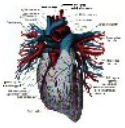
It occurs much oftener in males than in females, and in the majority of cases occurs after the age of fifty. But eases have been observed in youth, and even in infancy.

**PROGNOSIS.**

The *prognosis* will depend largely on the condition of the heart. If that organ, or the aorta, is in a state of structural disease, the prognosis is far more unfavorable than if the disorder is purely functional in character. If organic disease is present, you cannot assure the patient of exemption from their recurrence, while, if not connected with lesions, years may elapse before another paroxysm occurs.

Paroxysms of angina sometimes cause sudden death. In such instances, "the action of the heart is arrested by a morbid agency affecting it through the pneumogastric nerves, in the manner in which irritation of these nerves, or the electrical currents, produces this effect in experimental observations." (Flint.)

The danger is in proportion as the action of the heart is *feeble, irregular, or retarded during the* paroxysm. But if the action of the heart be but little, or not at all disturbed during the paroxysm, there will be but small



danger of sudden death. Sudden death will oftener occur when organic disease is present, than when the disorder is purely functional. Even if organic disease is present, judicious homoeopathic treatment often *cures,* and generally cures the purely neuralgic.

The *diagnosis* of this disease is generally easy. I do not see how the paroxysms can be confounded with attacks of dyspnoea, or so-called cardiac asthma, for with the latter *motion* is not incompatible, *pain* is rarely present, they do not occur *abruptly,* and there is not the same fear of impending death.

There is a *pseudo* angina occurring in hysterical, anemic, or dyspeptic persons. The misnamed *cardialgia* may sometimes simulate angina, and I have known the *pain under the left breast,* occurring in women, to be so severe as to resemble that disorder. Intercostal neuralgia and myalgia may closely imitate it; but the *tenderness on pressure,* which is so diagnostic of the former, is rarely present in angina pectoris.

**TREATMENT.**

The treatment of this distressing disorder embraces:

1. Remedies which will diminish the severity and shorten the duration of the paroxysms.

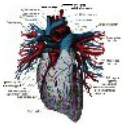
2. Such treatment in the intervals as will postpone or prevent the recurrence of the paroxysms.

It is a difficult matter, as you will find, to treat a single paroxysm. It is generally of such short duration that no remedy can be selected and given before the brief "reign of terror" is over.

But in those instances in which the paroxysm is of longer duration, you should do your best to allay the terrible distress. A. firm and reliant demeanor on your part—assuring the patient that he will *not* die—is of much service, for the deadly fear, added to the pain, may be a source of danger to the patient. There is some reliable testimony that a dose of *arsenicum,* 30th, has shortened the paroxysm. The same has been asserted of *lachesis,* 30th.

Certainly these remedies, if any, will act with sufficient rapidity, and are generally indicated in the severer forms.

If the action of the heart is very irregular and feeble, and there is a tendency to, or actual fainting, you should resort to the diffusible



stimulants, such as brandy, or any kind of spirits which you can immediately procure, or, what is sometimes better, *ammonium carb.,* a few grains, dissolved in milk and water. A prompt resort to stimulants may save the patient's life, and ward off sudden and fatal syncope and cardiac paralysis.

If, however, the tendency to faint continues, and the pulse is very feeble, slow, irregular, or intermitting, *digitalis* is the appropriate remedy, and should be given in doses of 5 or 10 drops of the first dilution, repeated every 15 minutes. Watch the pulse, and suspend the medicine so soon as it becomes normal in force and frequency. *Digitaline,* 3rd trituration, may be substituted for the tincture.

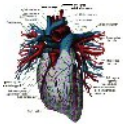
If, with the general prostration, the skin becomes suddenly very cold and clammy, and cramps of the extremities set in, give *veratrum album* in the 6th dilution, frequently repeated.

If the *pain* is so severe as to predominate over all the other symptoms, and the action of the heart is not notably depressed, you may resort to the inhalation of *ether.* In a case which occurred in my practice several years ago, ether always gave relief in a few minutes. *Chloroform* may be used if more readily obtainable. It has one advantage, that it acts more quickly, but it should be used with extreme caution. If half a drachm or a drachm does not give relief it should not be tried further. The *hydrate of chloral* acts very quickly, and a dose of ten or fifteen grains may prove a safe and efficient palliative remedy, used for the same conditions as ether and chloroform. Never give *opium,* or any of its alkaloids; they do not act quickly enough to palliate, and are useless as curative agents.

It has been found that *electrization* of the skin in the pericardial region is remarkably effective, both in arresting the paroxysms and postponing their occurrence. It is probable that with the great advancements made in electro-therapeutics, some method of application will be discovered that will result in a more certain curative treatment than we now possess.

Swallowing pieces of ice has been found an effective measure by Romberg. The application of mustard over the region of the heart may be of benefit. Dry cupping and the hot foot-bath should not be forgotten.

You should never be at a loss for expedients in the treatment of such disorders. Anxious friends are too impatient to wait until you have tried to question the sufferer, for every moment seems an hour to both, and unless you do something very quickly, their criticisms will be anything but complimentary. Not only should you be quick to act, but you should



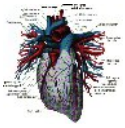
inform the attendants just what to do if the paroxysms return, and supply them with the appropriate remedy for such emergencies. It is seldom that a physician can be procured before the paroxysm has passed; for this reason it is your duty to anticipate the treatment. I will add that you will find it difficult to decide whether your treatment has really mitigated or shortened the paroxysms, for they vary so much as to intensity and duration. Finally, you must caution them against exciting causes, namely: strong mental excitement, violent muscular exercise, excesses in eating and drinking, walking against the wind, or climbing heights.

For the radical treatment of angina pectoris the hest remedies are *arsenicum, digitalis, laehesis, naja, rhus, aconite, spigela, cimicifuga,* and *phytolacca.*

*Arsenicum* is probably the most reliable remedy for the eradication of the disorder. Hartman says, " Not only the actual paroxysms, but the disease, generally finds in arsenicum its appropriate remedy, provided the disorder is not complicated with structural changes of the heart and the large arteries, or other extensive disorganizations. It is indicated if the patient can only breathe very gently, with his chest stooping forward, and if the least motion causes a complete loss of breath; if oppression and stitches in the pericardial region are associated with anxiety and a fainting sort of weakness; if the breath gives out even while the patient is getting out of bed, and it takes him a long time to recover his breath; or if the paroxysm is excited by a simple change of position in bed." To these indications I will add, that *arsenicum* is especially indicated in angina with regularly recurring paroxysms, as sometimes occurs in malarious districts. In these cases, if the 30th does not prevent the recurrence of the paroxysms, use the lower dilutions. The dose should be repeated two or three times a day.

*Digitalis* and *digitaline* come next in importance. Baehr asserts that he cured a case with digitaline, 2nd and 3rd trituration, "not very often repeated." The symptoms and therapeutic range of the drug correspond with the disease, whether it be a pure neurosis or accompanying organic disease of the heart. In cases of angina pectoris indicating *digitalis,* abnormal action and a sense of oppression, with tendency of syncope, are predominant. The pulsations are irregular and feeble, or spasmodic, and cause anguish and pains under the sternum and below the ribs of the right side. The pain extends to the head and left arm. Vertigo and fainting, and feeble, irregular pulse are generally present.

I advise you to use the 1st dilution, or a few drops of the tincture of *digitalis,* in a half-glass of water, and repeat the dose as often as every six



hours between the paroxysms. If you use *digitalin* use the *pure* alkaloid (not Keith's or any other inefficient article), in the 1st centesimal or the 3rd decimal trituration.

You will find *lachesis* and *naja* useful when the pain and dyspnoea are concomitants of organic disease of the heart, and are attended by irritation of the glosso-pharyngeal nerves, causing distressing sensation of choking, constriction, or "rising " in the throat, and inability to speak. Use the 200th, and repeat not oftener than every 12 hours.

*Aconite* will prove an excellent remedy in your hands if your cases are marked by intense anxiety, fear of death, coldness, and cold sweat, feeble pulse, and intense pain in all directions, and general or local numbness and tingling. It is indicated in pure neuralgic cases, and should be used in the lower dilutions.

*Spigelia* has been used with good results, when there are severe stabbing stitches in the heart at every beat; pain and palpitation, aggravated by bending forward, touching the stomach, lifting the arms, or any other motion. It is useful in the purely neuralgic, and also cases of organic disease. The 6th dilution is to be preferred.

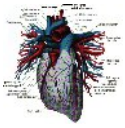
*Rhus tox.* is indicated in patients of a rheumatic diathesis —when the symptoms occur with or without organic disease. The characteristic indications for its use are, *stitches in the heart,* with painful lameness and stiffness of the whole body and extremities, and *pain extending down the left arm.* A case having these symptoms, also " hypertrophy with dilatation, paleness, and weakness; pulse soft, slow—48 per minute; coldness and numbness of left arm; pain worse every morning at 4 o'clock; a faint, fluttering sensation in stomach and left chest; gurgling in region of heart; soreness throughout left side; lying on left side brings on severe palpitation and pain- in region of the heart," is reported as cured by the 200th of this remedy.

*Phytolacca* will be indicated in those cases where the pain extends to the *right* arm.

I once cured a case with *cimicifuga*[2] 1st dil. The pains were sharp, lancinating, and extended all over the left chest, down the left arm, and into the back, with dyspnaea, unconsciousness, etc.

---

[2] See New Remedies. p. 284.



If the remedies I have mentioned fail to cure, do not be discouraged, but try the *valerianate of zinc, laurocerasus, cuprum, crotalus, arnica,* and *cactus,* which last may prove to be an excellent remedy in this disorder, when its peculiar characteristic symptoms are present.