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PERICARDITIS.
Pericarditis or inflammation of the Pericardium is one of those diseases which remarkably illustrates the improvement which modern research and ingenuity has effected in our diagnosis and treatment of diseases in general, but more especially of diseases of the Chest. Previous to the introduction of the Stethoscope by Laënnec, as a means of physical diagnosis, this disease was not only overlooked in its early and therefore in its more easily manageable stage, but as an inevitable consequence an undue importance and gravity
was attached to that which is now known to be comparatively a simple and tractable malady. It is impossible to overestimate the benefit which has been conferred on suffering humanity by this seemingly unimportant and simple instrument. Much, however, depends on the use of this, as of every other instrument, on the skill and knowledge of him who uses it. But we affirm, that by leading the enlightened Physician to lay hold of and appreciate those sensible phenomena which are now associated with the very name of Stethoscope, Laimée contributed not a little to the advancement of the science of the Medical Profession. To understand the importance of auscultation in Pericarditis it is necessary to bear in mind that by its aid we can now detect the disease in its most innocent state—whereas formerly when
symptoms alone indicated its presence, it was only the later
and more formidable stage of the disease that could possibly be
recognised. In one point of view an immeasurable advantage has been
gained, but it is as least true
that in the hands of an injudicious
Practitioner, a trifling Complaint
may assume the Character of a
grave disorder, and by being
treated as such, may enhance
the danger of the Patient. It is
evident however that such ob-
jections may be urged with an
equal show of reason against
every other improvement in the
Science of Medicine. We must
never argue on the abuse of any
thing, but always lay before the
mind the greatest amount of
good which any one agency is
Capable of effecting. It will
be the object therefore of the
present Essay, to enter into the
Consideration of a Disease upon
which although much has already been written, still offers a wide field for enquiry.
We shall now proceed to consider
1st. The Symptoms
2nd. The Physical Signs
3rd. The Causes
4th. The Treatment.

Sometimes Pericarditis takes place with all the symptoms of a very severe disease of the Chest, sometimes it goes on and proves fatal without betraying some of its most characteristic symptoms. Amongst the most important symptoms of Pericarditis we will notice:

Pains. This is the most important symptom of all, and almost might be considered as invariable. This is a disputed point however, for good authorities have declared that Pericarditis may and frequently does occur without any pain whatever. As a general rule it is applied to the Cardiac region or arises from this to the Epigastric.
Sternum or left shoulder. The pain in Pericarditis is similar to that in Pleurisy as regards its intensity but the former may be distinguished from the latter, by its not being increased on a deep inspiration by lying in a supine position. It has been observed that pain in the Epigastric region is very symptomatic of the disease, and is generally best marked when pressure is directed upwards and towards the Pericardium although it must also be rememnered that in Acute Pleurisy of the left side and in Acute Gastritis the Epigastrum is very tender. Tenderness over Cardiac Region.

This symptom is not so variable in its occurrence as the Pain. When present it is greatly increased by pressure on the intercostal spaces in the Cardiac region. Cough. This is very generally present. Most Commonly it is
of a Spasmodic Character and very harassing to the patient. When the disease is pure and uncomplicated with any other Chest affection such for example as Pleurisy or Pneumonia, the cough is dry. When therefore we find a short, dry, spasmodic, and harassing cough, with the absence of any physical signs of an affection of the Larynx or Tumors in the Mediastinum, we are warranted in attributing it to Pericarditis. It resembled very much the hysterical Cough of Women.

Anxiety. This symptom is sometimes similar in kind, but generally greater in degree than that observed in other chest diseases. It is frequently so great and unaccountable, that the slightest motion occasions an apprehension of sudden death—simulating in intensity Angina Pectoris Orthopnea has been considered by some as a symptom of this
disease, but in the majority of instances it is Angina.

Palpitation exists more or less as a symptom, but is exceedingly variable in degree.


Pulse
By many writers this symptom has been considered as very characteristic of the disease, but later and more extensive researches have established the fact that little dependence can be placed on the mere condition of the Circulation. Sometimes it presents all the characters of the inflammatory pulse—full, hard, regular and frequent—and when this is the case, less Angina is generally observed. In other cases, and which we generally find the most dangerous, the pulse is feeble, small, unequal and irregular, or very rapid, and sometimes intermittent, and according to Solchi with a peculiar jarring oscillatory vibration beneath the finger, which he attributes
to the arterial tube. Collapsing immediately before it is thoroughly distended by the stream of blood after the disease has proceeded to the stage of effusion, we almost always have suppression of the Pulse.

Dysphagia. This has been mentioned as a symptom, but it does not appear to be very characteristic or constant; when it does occur it arises from pressure on the Pneumogastric nerve, most probably caused by effusion.

Fever. In well marked instances this is usually very high, but has no characteristic symptom to distinguish it from the fever accompanying any other inflammatory attack. Moreover it is generally merged in some of the diseases which may coexist with or give rise to it, as for instance in acute Rheumatism.

Rheus Sardonicus. Contraction of the features, faintness, paleness.
failure of animal heat, continued
jactitation, insupportable distress
and alarm, cold, perspiration,
and finally from obstruction of the
Circulation, intumescence and
lividity of the face and extremities,
sometimes arising within the
last twelve hours of life, are
noticed by Dr. Hope, as the most
important symptoms of the disease
in an extreme degree. To these
he adds delirium and convulsions
in the last stage.

Having now mentioned the
most prominent symptoms which
are generally observed in this
affliction, we will now
proceed to discuss those
physical signs, which must
be considered more important
than, and when taken in con-
junction with the above
mentioned symptoms, are
all together unequivocal.

Before proceeding to the con-
= sideration of the individual
Signs, and in order to arrive at a better understanding of them, it will be necessary in the first place to briefly consider the morbid anatomy of this disease in its various stages.

The Pericardium consists of two membranes, an outer and an inner; the former being distinctly fibrous, and the latter a thin transparent membrane, evidently serous, which not only covers the inner surface of the fibrous coat and tendinous centre of Diaphragm, but at the origin of the great vessels it is continued down towards the auricles and ultimately over the whole outer surface of the heart. The disease of which we are at present treating, consists of inflammation of this twofold serous or transparent membrane, and it does not appear that the outer or fibrous layer has any
Concern in the morbid process. Perhaps the most common of all the results of inflammation of the Pericardium, is the simple exudation of lymph. These depositions of lymph are found most frequently at the base of the heart, but are also found at any other part. They are first soft, but after a while harden on one side or adhere to the other side of the sac. Seeing that these simple exudations are so common, the question has been raised whether they are inflammatory at all. We apprehend that this question depends very much on the views which are held. Concerning the true nature of inflammation, for if it is meant to be asserted that inflammation consists of an exudation, then undoubtedly such deposits are inflammatory, but if we must have the
ordinary symptoms of inflammation in order to constitute a true inflammation, then, in as much as these phenomena are not always observed, it must be allowed that they are not always indicative of any inflammatory process having taken place. I am however inclined to the opinion, that these are the veritable results of inflammation, but in many instances of so slight a character as scarcely to merit the name. In this state then Pericarditis is very common, and we must also allow very curable. The existing quantity of this exudation varies very much in different cases for although (as we have already stated) it is most frequently met with in small and detached pieces at the base of the heart, it sometimes covers the whole of the Pericardium in the entire extent of its opposed surfaces.
When a false membrane is thus formed on account of the perpetual movement of the contained organ, its unattached surfaces present many different appearances, which are very seldom seen under similar circumstances on any other serous surface in the body. Sometimes it presents a tuberculated appearance, or is studded over with small and smooth prominences. At other times it may appear rough and shaggy. When this exudation has been recently poured out, it is of a pale yellow colour, and when it has been secreted for some time, it presents an undulate or furrowed appearance. Next in frequency to these deposits of lymph following upon the inflammation of the Pericardium, is a liquid effusion having the appearance of a serous fluid mixed with coagulated
lymph in shreds, sometimes pure and even blood, and hence it is found of various colours and consistency. The quantity of this effusion varies very much in different cases, sometimes there are only two or three ounces, at other times there may be as many pounds. We do not in every case find these adhesions or investing deposits of lymph congealing with effusion, the one may be present without the other, or all three may occur together.

Having now enumerated some of the more important results connected with the morbid anatomy of this disease, we are in a better position to examine the physical signs and the modifications to which they may be subject.

It must appear plain that in Pericarditis as well as in other diseases of the chest a mechanical change must take place before
Physical signs are produced. Therefore in Pericarditis as in other diseases of the chest of an inflammatory character, we cannot on account of the absence of physical signs, expect to be able to form a physical diagnosis in the first stage of the inflammatory process. For example, very often all the special symptoms of Pericarditis have been present for two or three days before the friction sound becomes audible, as in a case mentioned by Dr. Mayo in which the symptoms were present and the friction sound was not produced until the third day after the appearance of those symptoms.

The earliest diagnostic sign we possess, and which enables us to determine with certainty the local character of the inflammation in Pericarditis, is the "friction sound."
Dorlan? as due to degrees of parent in 1st House.
generally accompanies the systole and diastole of the heart. Sometimes it is heard during the systole only, while again, though very rarely, it is heard only during the diastole. The sound is first heard about the middle of the sternum, a little to the left of the median line, and at first it is of a rubbing or rustling character, very similar to that produced when two pieces of silk paper are rubbed together, but as the disease progresses the sound intensifies and loses its character and this change depends on several conditions, such as the force of the heart's action, the amount of lymph exuded on the cardiac surface, the degree of roughness of opposed parts, or the amount of effusion or connection with other diseases. We may here mention a peculiar condition of the friction sound which was first noticed by Collin
Called the "Leather Creek sound" and which is considered indicative of dry Pericarditis. The conditions requisite for the production of this sound are as yet little understood. Dr. Copland thinks it only occurs in the chronic stage of the disease, and that it is dependent on a thickening and induration of the Pericardium and connective cellular tissue.

The amount of effusion as we have already mentioned, modifies to a great extent the intensity of the friction sound. If it be considerable, it either disappears all together or is heard only at the base of the heart, and on absorption of the effusion, we have renewal of the sound.

Dr. Stokes mentions a coexistence of air with the usual products of inflammation, as modifying the friction sound in a very peculiar manner, and belief...
the Case of a young man, who on first being examined presented the usual signs of Pericarditis. The Rubbing sounds, though loud and distinct, had nothing unusual in their Character, and the patient suffered little distress. When examined two or three days afterwards, he presented a haggard and worn appearance, and complained of extreme exhaustion, which he attributed to the want of sleep, induced by the extraordinary loud and singular Character of the Sound proceeding from the Cardiac region. For although the Rubbing sound had been quite perceptible before by the means of the Stethoscope, yet the patient had been quite unconscious of their existence. They were now so loud however that neither the patient nor his wife, who occupied the same apartment, could obtain a moment's repose. On examination
the sounds presented a mixture of various atrition murmurs, with a large crepitating and gurgling sound, while to all these phenomena was added a distinct metallic character. From the above symptoms, it Stokes could come to no conclusion, but that the Pericardium contained an in addition to an effusion of Serum and Coagulable lymph.

With respect to the force of the heart's action influencing the intensity of the friction sound, it can easily conceive that when the force is increased, the sounds will be louder, and on the contrary when the force is diminished, the sounds will be feeble, or may be about all together. It will be necessary for us here to enquire as to what degree the friction sounds connected with Pericarditis are affected.
with any other as Endocarditis or Pleurisy of the left side. When Endocarditis accompanies Pericarditis, it is difficult and many think it impossible to distinguish between the Murmu of the former and the friction sound of the latter disease. In diagnosing between these two diseases, we must keep in mind that the friction sound does not coincide exactly with the heart sound, although sometimes it is quite impossible to determine the relation in time between these two sounds on account of an abnormal rapidity in the heart's action. Pressure of the Stethoscope, on account of its increasing the Pericardial friction, has been brought forward as diagnostic between the two diseases, but Dr. Walsho states that he has heard a Mitral Murmur increased in intensity by it. The limitation of the Pericardial
friction sound to the Cardiac region is another very good diagnostic sign, but this again is not always infallible, for when the 'Leather Creek sound' is present, we may sometimes find the sound prolonged along the aorta, or even over a considerable portion of the chest, but then no vascular murmur resembles it.

When Pleurisy of the left side accompanies Pericarditis, the difficulty in diagnostic arises not from any change in the Pericardial sounds, but from the fact that similar sounds may and do follow upon inflammation of the Pleura, and for the obvious reason that the cause is the same in both.
The signs derivable from Pericarditis are most useful in every stage of Pericarditis, but it is only when we connect their results with the accompanying Stethoscopic signs that we can fully establish their real value.
As is well known, there is naturally a greater amount of dulness on percussion found over the Cardiac than over other regions of the Chest, but this dulness will be increased should there be effusion into the Pericardium, or hypertrophy of the heart, or enlargement of the right lobe of liver or Emphysema of the lungs, thus causing these organs to overlap the heart. When there is effusion into the Pericardial Cavity, it is generally but not always, of an inflammatory nature, and here we find the value of connecting the Stethoscopic signs with those of percussion. If the effusion be the result of inflammation, we necessarily must have had the friction sound, and as we have before mentioned the effusion increasing, this sound becomes fainter and fainter until at last it is only heard at the base of the heart, or perhaps may have all together disappeared.
Synchronously with the disappearance of the sound, the dulness increases until at last if the effusion be great it reaches across to the right, or beyond the right border of the sternum, upwards towards the clavicle, and towards the left lateral region.

If the dulness on percussion be referable to hypertrophy of the heart, we do not find it preceded by the friction sound, and in this case the dulness increases most markedly down wards, and towards the left side, while in effusion it increases in an upward direction.

If enlargement of the right lobe of the liver which occasion ally pushes the heart upwards and to the left side be the cause of the dulness in this case again we do not find it preceded by the friction sound, besides it would not be a difficult matter to recognize
Such an enlargement of the liver when Empyema gives rise to dulness in the anterior part of the chest, we generally find that it has been preceded by dulness in the posterior part, whereas in effusion into the Pericardium, the dulness is always situated anteriorly. It will be necessary for us to mention that in effusion into the pericardium to a large amount of fluid, we have sometimes physical signs produced, as the result of eccentric pressure, for example, we may have the formation of an epigastric tumour from the yielding of the diaphragm before the pressure of the Confined fluid in the pericardial sac, or we may have a dilatation of the precordial region analogous to that from Empyema, the only difference between this condition and the dilatation following upon Pericarditis being that the latter
is remarkably circumscribed.

The causes of pericarditis cannot
be said to be fully understood.
In its case can be regarded as idiopathic, and it is best
known to us as the local mani-
festation of some general morbid
condition of the system. Yet there
are instances in which the disease
must be regarded as originating
from a direct local irritation.
A gunshot wound of the chest,
as thrust from a bayonet, a stab
from a knife, or even a severe
bruise, are causes which would
undoubtedly suffice to produce
the disease—but in most cases
there would be reasons to apprehend
a fatal result from injury to,
and hemorrhage from, the heart
itself, ere a sufficient time
had elapsed to light up the
pericardial inflammation.
Necrosis of the ribs or sternum
may cause pericarditis. In this
case the dead bone might be
Supposed to act as an irritative substance, in the same manner as a foreign body would act, or we can imagine a new excitation of the inflammation, which necessarily accompanies or rather precedes the death of the bone.

Pericarditis may be presented as a collateral symptom of external Pneumonia and Pleurisy. Of all the local causes of the disease, this is perhaps the most frequent. Especially if there has been a very extensive Pleurisy of the left side, this will almost always be found indication either before or after death of Pericarditis.

There can be no doubt however, that under such circumstances, the Pericarditis is apt to be overlooked, as much as it is only when the Pleurisy is very severe, that we would expect an extension of the inflammation to the Pericardium.
Observe the characteristic diagnostic signs of the latter. Tubercular lesions of the left lung and Pericarditis are similar local causes of irritations. Diseases of the spine, as Causes of the Verterbra, may cause this disease by first Causing Pleurisy, then Empyema Tending to a Secondary involvement of the Pericardium. The following may be regarded as the principal indirect conditions which give rise to or rather correspond with the disease in question.

Pleurisy, acute Rheumatism, and Pericarditis so often occur together as to lead many to suppose that they stand to each other in the relation of Cause and Effect. In other words, that Rheumatism is the Cause of Pericarditis.

But modern Pathology teaches us, that what we are frequently pleased to designate the Cause of Pericarditis, is in reality merely a Coexisting Manifestation of it, and in many instances...
from the self same Cause. This one clears up the otherwise inexplicable fact, that we have sometimes Peri-
Carditis in connection with Rheumatism, and yet the former manifesting itself before the latter. As in a
Case mentioned by Dr. Grimes, where the symptoms and physical signs of Pericarditis preceded
the articular inflammation, and it was not until all the
signs of symptoms of Pericarditis had subsided, that the patient
was attacked with acute arthritis in the Knees, Shoulders, Wists,
and Ankles. Pericarditis accompanied with Rheumatism generally
occurs at a comparatively early period of life, from the tenth to
the thirtieth year. The male sex appears to be affected
with it as often as the female.
It occurs more particularly
during severe and Changeable
weather and especially in the
Spring.
Bright's Disease. The existence of hydrops-pericardium or hydrostatic effusion into the pericardial sac, is by no means rare in connection with Bright's Disease, and this has led many observers to the conclusion, that the latter disease is next in frequency to Rheumatism as a Cause of Pericarditis, yet it may be doubted if the effusion in this case be inflammatory at all, or just as in Ascites is a mere passive atrophy. It is probable that this is the real Explanation of the Matter, and that the Condition of the Blood which is known to exist in Bright's Disease (namely a Comparative Deficiency of Albumen) is the Determining Cause of the Pericardial Atrophy, for it is just as rare to find the pericardial effusion in Bright Disease, accompanied by inflammatory Symptoms, as the absence of the effusion itself is Common.
Subacute Pericarditis is very rare and when it does occur it is exceedingly inadmissible. It can only be discovered by the presence of a distinctly palpitical constitution. The treatment of Pericarditis, with slight modifications, is essentially the same as that pursued in all cases of acute inflammation of any of the other serous membranes of the body, but is more particularly analogous to the treatment adopted in Pleurisy. In no other acute disease is the young and inexperienced Practitioner more liable to be led into error in his treatment, than in the affection at present under consideration. So him, as indeed to most men, the very name of the disease is suggestive of the most heroic treatment; and this is probably due to its close connection with an organ so important to life as the heart. The great danger is, that he will attempt to overcome the local...
and apparently most urgent symptoms, at the expense of the
general Constitution; such treatment
it is evident would be entirely
erroneous. We have already seen
that much uncertainty and Con-
fusion exists as to the real nature
of the disease, and the word
Pericarditis is used to designate
diseases which are widely different
in their Pathology, and hence can
not rationally be treated alike.
This disease, like Pneumonia,
aptly illustrates the folly of
treating any disease from physical
signs alone, regardless of the
Constitutional effects to which
the malady gives rise, and
which might be taken as a
much safer basis on which to
ground our treatment. Thus,
without entering into the vexed
and still unsettled questions as
to Whether inflammation have
undergone a change in type,
the word will now affirm that
the Pneumonia, (such as the Stethoscope now so infallibly discloses), can be treated in the same manner as the Pneumonia which was formerly recognized by the intensity of the symptoms alone; — active depletion, and the most antiphlogistic regimen was no less appropriate to the one, than it would be indulged, or even dangerous to the other. In like manner, there are many cases which the auscultatory phenomena would justify us in calling Pneumonia, but which would no more bear the treatment proper to that disease, than would be borne in the analagous case of Pneumonia. Physical signs are only valuable when they throw an additional light on constitutional symptoms. They cannot be trusted to alone, nor do they alone furnish data on which a rational treatment can be based. Hence a practical
Reduction from this is, that in all cases of Pericarditis we must first look to the effect produced on the system and treat the case accordingly. Some cases demand heroic; others as profess forbid their employment. Many cases require no treatment at all. We shall now consider the various remedial agents which have been resorted to for the cure of this disease. Amongst those and the one on which we would feel inclined to place great reliance is Bloodletting. In regard to the efficacy of Bloodletting whether general or local in acute inflammation a difference of opinion obtains; but in the present state of Medical Science it is pretty generally admitted that when judiciously used it is one of our most powerful and valuable remedial agents. Let us now consider what are the general.
Effects of bloodletting, and the best kind for it is applicable, as a therapeutic agent, in periodicity. Its effects then are:

1. A sedative result on the heart action, and on the general circulatory system; affected, partly by withdrawal of its usual stimulus, the blood from the central organs, and partly by the depressing effect of sudden loss of blood on the nervous system, which reacts in a corresponding strain upon the circulation.

2. The blood is diminished in actual volume.

3. The blood is also affected as to its component parts.

4. Derivation of blood is effected from other parts to that which the blood issues; the inflamed parts probably benefitting in a special degree.

5. The action of other remedies is facilitated.

Keeping these in view, there are...
Certain rules, by which we must be guided. We examine the force of the heart, not only as indicated by the force of the pulse at the wrist, but by the actual strength of the impulse, and character of the first sound especially. If the impulse continued vigorous, and the first sound undiminished, we may be less apprehensive of the use of the lancet. On the other hand if, after depletion, the impulse has manifestly declined in force while the first sound is lessened, great caution must be used before we repeat the general bleeding. In fact, the application of the remedy is to be guided more strictly on the principles as in other serious inflammations - the stimulating quality of the blood should be reduced by depletion, and the direct sedative effects of it be lost upon the heart.
be obtained without pushing it to the point, calculated to produce reaction. These remarks apply to bleeding in general, but most of our best authorities are inclined to place more reliance in Pericarditis on local obstruction of blood than on venesection. The advantages of the former over the latter are manifest in fact we obtain in this way the good effects of both! It is not easy to explain the "modus operandi" of local depletion in diseases either of the chest or abdomen, as it has been clearly proved that no vascular communication exists between the parietes of those cavities and the contained organs. Explain it how we may, however, the fact is the least true that a beneficial effect of this exerted on the disease which we would fail in
affecting by general bloodletting.

To carry out this indication, we may have recourse to leeches or cupping; the former are in most cases preferable. We may begin with twenty or thirty leeches, and gradually reduce the number on each application—two or three applications may be made in the twenty-four hours; a warm poultice being applied during the intervals. It will be hardly necessary to say more on this part of the treatment, farther than to adhere extremes. Caution in its use, in all cases where actual inflammatory symptoms are not clearly demonstrated: for we must ever bear in mind that it is a very lazy matter to take away blood, and thereby induce debility; while to undo that result is in most cases difficult, and
Often impossible. On the other hand it is no less certain that in many cases of acute inflammation, more particularly in that of the Pericardium, the application of a few leeches to the precordia (even in cases where the patient general constitution would make us hesitate to use the leech), is frequently followed by relief of the worst symptoms. We need scarcely remark that when the fever accompanying Pericarditis attains the typhoid type (as it not infrequently does) bloodletting is entirely contraindicated. The tendency of the practice of the present day, whether from fashion or as the result of general experience, is to underrate this remedy, and instead of applying it in cases where it is not required, we now find our highest authorities are still at war upon the question.
"Is bloodletting ever necessary?"

Mercury. There is perhaps no remedy in the wide range of the Pharmacopoeia, from alone excepted, that admits of so general application in the cure of disease as this. I mean to except a peculiar general action on the Capillary system, giving it a remarkable power of modifying inflammatory action, and of all inflammations this action is exerted most beneficially and manifestly in Pericarditis. In using mercury here we have two objectives in view; 1st to stop the inflammatory action; and 2nd to get rid of its consequences. So fulfill the first indication, the mercury should be given immediately after the bleeding, for we know that then the action of remedies is much increased. We may give it internally or externally, or both methods may be
employed: any of its compounds will be, and almost every practitioner has his favourite preparation. This proto-codide, given in doses of the fourth or third of a grain, two or three times a day, is now much in use. Colonel was formerly in general use in Pericarditis and is still employed by many, and to prevent its action on the bowels and cardiac physiological effect on the system, it may be combined with Opium. The Colonel and Opium full is thus well adapted, as fulfilling these indications. Colonel may be given alone or in scrapes doses, once or twice daily, as recommended by Dr. Johnston. In all cases it will be necessary to induce a slight degree of salivation when we wish to bring the system rapidly under its action. Mercuroid inunction may be had on purpose.
Sarat Emetic though invaluable in other acute inflammations of the chest, it does not seem to do harm here. Emetics when there is much local pain with general restlessness and sleeplessness. Opiates will be indicated; but of course when the fever is high and there is a tendency to cerebral congestion, they must be assisted from Dover's Powder seems in many cases to be useful, principally when the disease supervenes on or coexists with a rheumatic attack. Its good effects are owing to its sedative and diaphoretic action.

Salines have been recommended by some, but their good effects in this disease have not been so generally observed as to lead to their adoption in practice.

Blisters in the chronic stage of the disease, when the effect unfortunately resists our treatment.
Blisters over the Cardiac region have often the effect of promoting absorption of the fluid, and if mercury should have been neglected in the early stage as gentle medicine course may be followed with good results.

The influence of iodine has been put forward by Dr. Stokes as a substitute for blisters, but he himself has not seen confidence in its action, and we cannot suppose its likely to exert a curative influence. When blisters have failed, digitalis hydrocyanide and other sedatives will seldom be used with advantage in this disease. Lastly in reference to the use of stimulants, it must be always on the watch to see that the patient's strength is not succumbing, and whenever we find a tendency to sinking some Brandy or ammonia will be certainly required.

James Inkson