Clinical Remarks on Acute Rheumatism

An Exercise for the Degree of Doctor of Medicine

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March 1864
Clinical Remarks on Acute Rheumatism.

I have selected as the subject of the following remarks, Rheumatism in its acute form, or Rheumatic Fever. I chose it, because it is a disease at once so common in its occurrence, so productive of exquisite suffering in its course, and so formidable in its results, that any attempt to throw light on its Pathology, or its treatment, however faint it may be, cannot be regarded as altogether futile, even though it attain no better result than that of attracting the notice of those, who by their more extended experience and mature judgement, can benefit the cause of suffering humanity, and medical science in a far greater degree than the type in Medical Observation.

The very fact that so many remedies have been tried in a disease, the characteristic symptoms of which in all cases present more or less the same type, shows not only that its cause is not yet accurately ascertained, and hence that no specific has yet been discovered, but also that the remedy which has at one time been followed in its exhibition by most marked success, has in other cases of equal or even less severity, failed entirely to mitigate the acuteness of suffering, or to ameliorate in the slightest degree the after condition of the Patient. That these supposed variations in the effects of
remedies should occur, is scarcely to be wondered at, for it is undoubtedly the tendency of many minds to associate a chain of symptoms or events, with cause and effect, and hence to argue that as it is post-hoc, it must needs be propter-hoc, and thus the eager champion of some particular remedy, is very liable to ascribe to his favorite treatment, that which ought to be placed solely to the credit of the "vit medicativa naturae" or in other words, to those powers of repair and tendencies to restoration, which the human frame undoubtedly possesses, more especially in the earlier periods of its existence.

It cannot be denied that this is a great source of fallacy, and a cause for frequent disappointment; hence it behoves all who investigate the phenomena of disease in connection with the action of remedies, to ascertain as far as it possible, what is the course of the disease under observation, when left entire to nature, with the exception of proper hygienic measures, without which precautions, results equally fallacious will be obtained, for natural tendencies would be interfered with and impeded by the obstacles in their way, and grave disorders generated from the most trivial functional derangements.

Observations on the phenomena of Acute Rheumatism form no exception to the broad principle which I have endeavored to establish, and accordingly, I shall take occasion to refer to cases which were under my care when Physician's Assistant at University College.
Hospital, in which I endeavoured to form an idea from clinical observations of the progress of the disease, when unaided by art.

I have already stated my belief that the cause, or origin of Rheumatic Fever, are, as yet, not ascertained. I must confess my inability, from my own experience, to discuss the matter, for when so many eminent judgements are at fault, or rather to employ an euphemism——do not agree, it would be premature in one of such limited experience, to theorize on such an important subject. I have however endeavoured, by careful inquiry, in all the cases which have come under my own observation, to lead the patient to state his own views as to the cause of the attack. In some cases I have traced the attack distinctly to some exposure to cold, or to wet, especially in females; but in the majority of instances I have utterly failed in attributing to any external circumstance, the origin of the complaint.

I cannot however express cold and its influence on the animal economy, from the list of the predisposing causes of Rheumatism, for I firmly believe that it is not only a potent predisposing cause, but that in many instances it is the exciting cause——

It has been said that extreme variations of temperature are favouring causes of Rheumatism. I can only say that whilst I was an officer of one of H. M. Transport Ships in the Persian Gulf, during the Persian War in 1856, the ship's Company were exposed to very great alternations of temperature, the Thermometric during...
The day standing at certainly 105°F, and falling during the night to 78°F, and yet I cannot recollect a single instance of Rheumatism occurring during the whole time I was on that station.

Again, I know that in my own family, members of it who had most studiously taken every precaution in their power to guard against the possibility of an attack of Rheumatism, have fallen victims to the disease, hereby proving that neither cold, nor exposure to great alterations of temperature are essential to the appearance of the disease.

But is it, then, to think that the cause of which we are in search, is to be found in the Animal Economy? By itself, and if we watch the phenomena of Rheumatic fever, they cannot fail I think, to point to the blood, which is equally able to discriminate disease and death, as it is life and health, as the medium by which the poison producing the peculiar phenomena under consideration, is circulated throughout the system.

I believe that this theory is now generally held, but what the nature of the exciting agent may be, has, to my mind, been satisfactorily determined. That Rheumatism is due to some morbid condition of the blood, may I think fairly be argued from the analogy between its symptoms and phenomena, and those we know to be produced by a vitiated state of the circulating fluid.

The strongest proof to my own mind, that the blood is in an abnormal condition in this disease, is the frequent presence of transient or fugacious...
In support of the above, I submitted the enclosed letter of explanation.

Sincerely,

[Signature]
Murmurs which I have traced along the course of the principal arteries, during the height of the disease, diminishing in their intensity as the severity of the attack declined, and disappearing entirely when convalescence was fairly established.

It may be urged as an objection to this theory, (for such it is; and I have never been able to find a reference in any treatise on the subject to the existence of these Murmurs), that the Murmurs here alluded to were generated by the pressure exerted on the chest walls, but I am satisfied that this was not the case, for being fully aware of the effect of pressure in the production of Murmurs, I took every precaution in my power to guard against the agency of pressure.

I have frequently traced these Murmurs under each clavicle, as far as the aeronimal angle, whilst upon placing the stethoscope over the region of the heart, I could detect no Murmurs.

I have already alluded to cold as a predisposing cause of Rheumatism. It is often also an exciting cause.

1. When the system has become weakened or exhausted, as by excessive muscular exertion, by sexual indulgence, or by a continuous drain on the system, a period of prolonged reaction, a period of reaction, is generated, which in combination with the depurating influence of cold, or other external causes, will lead to the development of the disease.

2. Rheumatism is undoubtedly hereditary.
I cannot enter into the analogy between joint and Rheuma-
tic, as bearing on this subject, for I have had no cases under my own care, which have enabled me to make original observations on this subject point.

With regard to the power of transmission of Rheumatism from generation to generation, I think all authors are agreed, and the large proportion of cases in which I have distinctly traced the hereditary transmission of the disease, leads me to support the doctrine.

Age.

Dr. Fuller says, that "the usual age for the development of the acute disease is from the period of infantile period, until the powers of the system begin to fail, very few cases occurring before 15, and comparatively few after the age of 50."

I am inclined to believe, that Rheumatism is much more common in early childhood than is generally supposed, and that its existence is often overlooked as a consequence of the joint affection being so slight. I have seen the heart of a child four months old, who had been restless and febrile for some few days, and who suddenly died — the post mortem examination revealed that acute Rheumatism was the cause of death. I find that Dr. Waterer in his lectures on his Principles and Practice of Physic, says, "I have repeatedly however, seen it in children sometimes as early as the third or fourth year." Vide Op. Cit., vol. ii. p. 742.
However, be this as it may, there is no doubt that the majority of cases which come under the Physician's care range between the ages of 14 or 15 and 35 to 40.

On this point opinions are divided; for whilst O. W. Wood remarks that women are said to be more frequently affected than men, the general opinion amongst the medical men of this country appears to be that men are more frequently affected than women, although in a slight degree.

J. Fuller refers to 425 cases recorded by himself, and 238 out of which 226 were males, and 199 females.

6. Previous attacks

O. W. Wood considers this amongst the most powerful predisposing causes, and in my own cases I have struck with the overwhelming majority in which there had been previous attacks.

I have already stated my belief that Rheumatism is a disease depending for its cause on a poisoned or morbid condition of the blood, and I have based my belief upon our culturatory phenomena. In accordance to the seat of Rheumatism, the numerous organs which are affected by it must be noticed, 


They are, as stated by various authors, the skin; the muscles, with their tendons, and aponeurotic expansions; the bones with their periosteum; the joints, with their articular cartilages and surrounding structures; the heart, with its endocardium and pericardium; the lungs with their pleurae; the duodenum, and the membranes;
of the spinal cord, the uteri, kidneys, liver, testes, eyes, and other structures.

Some of these are as doubt of very rare occurrences, even in the experience of the learned men who have placed them on record, and therefore it would be out of place in an essay like this, to do more than mention them.

I may however be permitted to advert to one case bearing on rheumatic inflammation of the duce badder, which occurred before I was able to recognize or appreciate its value, as a parallel to several cases which Dr. Watson has recorded in his lectures (4th Ed. vol. 2, p. 1008 et seq.) which tend to confirm the possibility of making a fallacious diagnosis, even though the symptoms be so strikingly characteristic of meningitis.

I have no notes of the case, but some circumstances connected with it, it became very strongly impressed on my mind, and I can therefore trust to my memory for the leading facts of the case which were as follows.

Mr. — aged 42, a medical man, in great poverty, owing to his inability to practice, in consequence of ill health; of uniformly tempestuous habit, was admitted suffering from an attack of acute rheumatism. He had previously had three or four attacks of rheumatism. The joints were some of them painful and swollen; his complexion was very sallow, his expression anxious, his eyes particularly bright and restless; he answered questions with reluctance and hesitation. He frequently placed his hand over his heart, and complained of pain in the pectoral region.
There was distinct evidence afforded by post-mortem examination of cardiac disease. It became rapidly delirious, at times most violent, but at last sank into a comatose state, and died 2 or 3 days after admission.

On post-mortem examination, the vessels of the brain were found to be somewhat congested, and on dividing the hemispheres horizontally, the red points were seen to be rather numerous, but there were no marked signs of disease. The heart was discovered to be the seat of extensive lesions.

The cause of delirium in this, and similar cases, is most likely due to the circulation through the vessels of the brain of vitiated blood, and the consequent abnormal stimulus imparted to it.

Toldt in his Clinical lectures on Acute Rheumatism says, "this delirium has no necessary connection with the heart affections, at least with endo-carditis and peri-carditis, for it occurs in cases of severe joint, in which there are no such heart affections as there are in rheumatic fever." Again he adds, "I have seen indeed this delirium in persons of strong marked rheumatic or joint disease, accompanied by all the signs of rheumatic arthritis, fever, the sweat, the furious tongue and the litter arising, and not only without cardiac but even without articular affection."

It has been a matter of surprise to me, that in some of the cases which I have carefully examined, although apparently there were some of more than ordinary severity, I was able to detect the slightest trace of
albumen in the urine, by the usual mode, of applying heat and nitric acid, or by boiling with nitric acid.

The skin is not unfrequently implicated in the course of Acute Rheumatism. I have seen several cases of Dry Rheumatism, and, two beautifully marked cases of Dry Rheumatism, besides other forms of skin disease. In one case a distinct bulla, formed on the muscles of the right calf, which answered exactly to the description of Erythema nodosum, given by Mr. Hardy in his Lectures on his Malat de la Peau. I have not however been able to confirm my observation by any reference to the subject by others, and I therefore hesitate much in noticing it. So much as when once mentioned, other instances may be cited as confirmation. I have ventured to give it occurrence a passing notice.

The implication of the lung is unfortunately more common, but most of all do we meet with affections of the heart, and these are the most serious complications with which the physician has to contend, for they too frequently lay the foundations in Early life, of defective constitutions, and entail the liability to a conjunction of maladies, which will certainly terminate a miserable existence, or they cut off the patient in the prime of manhood with appalling suddenness.

It is estimated that in from one third to one half of all the cases of Acute Rheumatism, the heart is affected. Several theories have been advanced to explain this. One great authority writing on the subject, remarks that "the circulating blood carries with it a poisonous material", which by virtue of some neutral or electric...
Affinity, falls upon the fibrous tissues in particular.

This it must be confessed is as convenient a mode of
avoiding the difficulty as may be, but it is as unsatis-
factory as the use of the word Catalysis in Chemistry,
by which mystery or ignorance or both are developed
in decent attire.

Creveldier remarked that those parts which have
been subjected to long continued and violent exercise,
are especially prone to be affected, and an ingenious
application of this observation has been proposed by
Dr. Fuller. In Rheumatism, the blood is found by ex-
p erience to be hyperemic, and the excess of fibrin
is said to be the cause of the greatly increased action
of the heart. To this increased action Dr. Fuller
looks for the explanation of the fact that the sub-
cardiacium and periocardium suffer more frequently
than the filmy serous membranes in other parts of the
body. The heart is necessary in a state of great
excitement; its investing and lining membranes are
consequently subjected to increased tension and in-
creased friction, their nutrition is proportionably ex-
acted and everything therefore is in a state to favour the
irritative action of the rheumatic poison.

Employing terms in their ordinary acceptation,
Rheumatism may be divided into three great classes,
 viz. Acute, Chronic, and Neuralgic.
A fourth disease unfortunately named Rheumatic
Gout, has by some been included under the head of
Rheumatism—Dr. Garrod regarding the true pathology
of this disease which is alike distinct from that of Rheumatism and that of Gout, has suggested a term which is far preferable, viz. Rheumatoid Arthritis, which also indicates its resemblance to Rheumatism in some of its characters.

My purpose is not however to discuss the nomenclature of diseases or their varieties, but to attempt to describe that form of Rheumatism to which I have applied the term Acute.

Acute Rheumatism is invariably attended with pyrexia. This pyrexia may or may not precede the development of the local symptoms. I am inclined to believe that it does precede their development in the majority of cases, but unfortunately I have no statistics to bring forward in support of my belief. This pyrexial period, which may be absent altogether, until the nature of the disease has declared itself by the joint affection, varies in duration and in severity. Generally however it lasts from one to three days; it may be merely a feeling of malaise, or it may assume the character of a severe febrile attack, as indicated by a full, quick pulse, a foul tongue, great thirst, wandering pains in the limbs, loaded urine, constipation of the bowels. These symptoms are sometimes preceded by a slight rigor, headache, or sore throat.

This set of premonitory symptoms is in the vast majority of cases followed by the characteristic feature of the disease, viz. the joint affection. One or more of the joints become affected, the knees, ankles, and wrists being those which are usually first attacked.
This affection may be gradual or sudden, either commencing with a feeling of stiffness or uneasiness on movement or the pain may be sudden and severe. Those joints which are attacked soon become very hot and swollen, and exquisitely tender on movement or pressure. The swelling is tense and elastic. Frequently there is a distinct knot of redness at one point, or it may be over the whole of the joint, but I have almost as frequently observed an absence of any alteration of the natural tint of the skin, even when the swelling and pain have been extreme.

The great feature of this Rheumatic affection of the joints, is the frequency with which it changes its seat, the swelling and pain appearing as rapidly in others as it leaves those joints previously affected.

The structures about the joints affected are often left in a dry, indurated condition after the inflammation has subsided, so much so indeed, that they frequently pit on pressure. This is of course due to the effusion of fluid into the cellular tissue, which cannot be immediately reabsorbed.

In this form of the disease there is often considerable effusion into the joint itself, which exists simultaneously with the effusion into the cellular tissue around the joint. I would not wish it to be imagined that I have been confounding the two diseases Rheumatism and Rheumatoid Arthritis, for it is generally easy to separate them, first by the comparative absence of febrile disturbance in the latter, and by their effect after effects upon the joints themselves.

Let the inflammation be every so acute, in Rheumatism
it is infinitely better rarely followed by suppuration, or by permanent injury to the joint, whilst on the other hand Rheumatoid Arthritis, when it has once invaded the joints, rarely leaves any free from mischief.

In the latter disease also, there is an absence of the common precipitations and the cardiac complications.

The countenance of the patient suffering from Acute Rheumatism is generally somewhat cheerless, although at times it is expressive of intense suffering. The face is sometimes flushed, but more often paler and more dewy looking the conjunctival mucous have a marked litter tint; the tongue is thinly coated with a brownish yellow film. Although the temperature of the body is raised considerably above the normal healthy standard, the skin has none of the peculiar heat, which is felt when the hand is applied to the skin of a patient suffering from Typhus or Typhoid fever. On the contrary, the skin is bathed with perspiration especially at night, or during intervals of relief. The peculiarly "rheumatic" odour of the perspiration (which however is often absent) must be appreciated by the senses, rather than described in words.

In most cases I have observed that from first to last, the bowels are most obstinately constipated, and the evacuation proportionately offensive. The urine is scanty, very highly coloured, very acid, and deposits a thick pithy stratified coat on it.

The pulse is always quick, but varies in strength, being sometimes full and bounding, at other times small and weak.

In all my cases, the appetite has been wanting almost entirely.
It must be remembered that the febrile disturbance, is not necessarily commensurate with the severity of the joint affection, or any other local symptoms, for it has no relation to it, nor is it in any way dependent on the development of those symptoms, on the contrary, the constitutional disturbance may, and does occur in its severest forms, without any articular affection at all.

It is therefore a matter of paramount importance for the student and young practitioner to bear in mind the constitutional nature of this disease, so as to guard against being misled in his diagnosis and treatment, by the absence of these local symptoms, which by some, are imagined to be the essential part of the disease.

In some cases, the heart is affected before the articular affection manifests itself, and the wireless way in which the heart becomes involved, demands the greatest care and watchfulness on the part of the medical man. Hence it is that every student is taught the value of examining the heart at the very first opportunity, as affording him the clue to unravel a mystery which might otherwise remain unsolved, and the proper for medical interference, which if too long delayed may cost the patient his future health, or even life itself.

Convalescence is usually rapid after an attack of Acute Rheumatism, but my own experience does not lead me to attach very much importance to the presence or absence of copious perspiration during the disease, as influencing recovery, for in several instances where sweating was most profuse, and the perspiration strongly acid, Convalescence was most tardy.
As far as I have seen, recovery from the attack is complete; hence, if there has been no internal complication, the patient is, to all appearances, as well as he was before the attack.

Even in the severest cases, complicated with intense cardiac and pulmonary affections, recovery apparently complete, does take place. I had the opportunity of verifying this in one of the severest cases of Acute Rheumatism I ever saw.

A man named Bissett, was admitted into University College Hospital in February 1863, suffering from a severe attack of Rheumatism. He had been laid up about 14 years previously with a similar attack which although by no means so severe as the present one, had resulted in permanent organic damage of the mitral valves of the heart, as evidenced by the murmur accompanying each systole. The present attack, in its course became complicated with the most serious cardiac and pulmonary affections. For some days the pericarditis was extreme, and with paroxysms of dyspnoea precluded all possibility of his obtaining repose. His life appeared to be hanging by a thread, but he recovered, and in September 1863 he came to see me at the Hospital, in the enjoyment of good health, and without any trace of his Rheumatism, except the mitral disease, which at that time did not in any way interfere with his comfort.

The estimates formed by different observers of the duration of an ordinary attack of Rheumatism, have differed greatly. This is scarcely to be wondered at, for it into there have been no accurate data by which the commencement, or the termination of diseases could be accurately
determined, and if there be no universal standard of convalescence or recovery, for some uniform method of reckoning the duration of diseases, I cannot see how correct and unbiased judgments can be formed. On the Continent I believe the thermometer has for some time been used in clinical observations, but it is scarcely recognized now in our own country, and certainly its importance is not appreciated. To Professor Sydney Ringer of University College, London, I owe my appreciation of the value of the thermometer as indicating the temperature of the body for purposes of diagnosis, or rather aids to diagnosis; and indices of health or disease. I think that the value of thermometer observations will before long be realized, and allowed, more especially in the acute Specific diseases, e.g., Typhus, and Typhoid or Intercase Fever.

As this leads upon my own subject, I may be allowed to allude a little more fully to it, for if neglected, or used improperly, it may become a source of fallacy and ridicule. Whereas if carefully attended to, it is the most reliable manifestation of exacerbation or of resolution, the surest index of approaching dissolution, or the ground for hopeful encouragement to the physician, and last, but not least, the faithful monitor, warning the practitioner of the approach of untimely maladies, the incidence of which upon the already enfeebled constitution, if left too long unrecognized or unheeded, will baffle the attempts of the most consummate masters of our art to counteract.

Let me illustrate this by referring to a few cases. It is a most significant fact noted by Dr. Sydney Ringer
In some few of the numerous cases of Acute Rheumatic fever, in which he has recorded most minutely the variations of temperature, the thermometers indicated a temperature of 105° F. or more. Every one of these cases terminated fatally.

In several of my own temperature sheets, I found a temperature of 104° F., and yet with the one exception of the case to which I alluded on page 8, I have never seen an attack of Acute Rheumatic fever terminate fatally.

I have said that the thermometer affords no warning of the approach of intercurrent diseases. This was exemplified in the case of Elizabeth Holmes, one of the hospital nurses, who contracted Typhoid Fever and was admitted under the care of Dr. Lodge, to whose skill and most meritorious treatment she owes her life. This case presented to the students all the typical characteristics of a severe attack of Typhoid. Her temperature ranged from 101° F. to 104° 3/4° F., but on the 31st day of illness I found by my notes, that her temperature was still 102 3/4° F., on the 40th day of illness she still had a temperature of 101° F., and it was not until the 142nd or 143rd day that her gradually but permanently decreasing temperature gave us hopes which were happily well founded, of a favorable termination. The continued elevation of temperature beyond the known limits of this disease, namely from the 28th to the 36th day, or even according to Dr. Murchie on the 35th day, was due to ulceration of the mucous membrane of the stomach, and to peritonitis.

Let me further refer to a case of Acute Rheumatic fever, in which my statement is more fully borne out. A very fine, well-built young man named George Leisen was admitted.
into the hospital suffering from a very severe attack of Acute Rheumatism. His temperature ranged for some time between 101°F and 102°F, the heart being affected during that time. The morning I went as usual at 9 o'clock to take his temperature, which I found to be over 103°F. Although this is not at all an unusual temperature to be met with in the course of this disease, I was induced to suspect some intercurrent disease by the sudden rise from the night before, and the existence of so great a temperature at that early hour; and consequently examined the heart, which was in the same condition as the previous day, and the lungs, very carefully. There was perhaps a shade of dullness on the left side, but nothing more. Still being in doubt, I examined him again in the afternoon, and discovered, to my delight, in the left infra clavicular region, slight, but distinctly audible, dry friction sounds.

Careful observation of the variations of the thermometer will now and then save the young man from disappointment. A little girl named Jane Jones aged 12 was also under my care during an attack of Acute Rheumatism which was attended with severe Pericarditis. After a certain time she was Convalescent, free from joint affection apparently, and indeed so well that her temperature had fallen to 99.5°F and remained stationary for a day or two. She begged most earnestly to be allowed to get up for an hour or two afternoon, and in an evil moment of weakness yielded to her entreaty. In the evening her temperature had risen to 101°F, and some of the joints were again attacked.

I have not, nor do I intend to theorize, for my experience is too limited to enable me to do that, but I do think that
few as my cases are, but there are deductions to be made from them, which will warrant further research.

This somewhat novel mode of clinical observation is within the reach of the dullest student, for it is so mechanical, that care alone is required to secure correct results. I have laid so much stress upon the value of the thermometer, that I think it will not be out of place to make a few remarks as to the mode of its use. If thermometric observations are to possess any value at all, they must be made with regularity, that is to say, at special hours in the day, and at corresponding hours each day. The thermometers I was in the habit of using were made by Messrs. Negretti and Zambra of London, and were graduated to fifths, which I think is a most useful aid to the correct reading of the temperature. The axilla is the most convenient place for inserting the thermometer, care must however be taken, that nothing interposes between the skin of the patient, and the bulb of the thermometer, and that the arm and forearm of the patient be drawn across the thorax, so as to compress the instrument. Should the patient have been previously unscrewed for clinical examination, or other purposes, some little time should be allowed to elapse before inserting the thermometer, in order to allow of the original temperature of the parts being established. The patient should always be in bed and covered up, so as to prevent the access of cold air to the instrument, which might engender a fallacious observation. If the thermometer is sufficiently delicate, it will be found to have risen to its maximum in 5 or 6 minutes, if however the bulb be first warmed in a spirit
lamps, a correct reading will be obtained in a shorter time.

I think it will be found most convenient to project the various
results in a diagram, such as I intend to lay down shortly,
for then a bird's eye view of the case is obtained at a single
place.

Before passing to another subject, I think it is due to the ther-

mometer as well as to myself, to mention that as the cases which
afforded me the opportunities for observing their phenomena, and
in the hospital, between the months of July and October 1863,
the ideas I have already expressed as original, and not a
reprint, or an unacknowledged loan from a work which
I have since read. I refer to the chapter or section in the
2nd Edition of O. Aubert's Science and Practice of Medicine
Vol I. p. 42. on the value of continuous thermometric ob-
servation in the diagnosis and prognosis of diseases where
fever may be present. The subject is there assigned the
position which it deserves, and as an Edinburgh graduate
who has attained so high a rank in the profession as the
gentleman to whom I have alluded, has thus publicly and
sincerely upheld the practice which I have been freely endeavoring to recommend, I feel sure that my remarks can
neither be opposed to sound practice on the one hand, nor
too trivial or unimportant to be mentioned in Clinical Re-
marks on Acute Rheumatism.

Before entering on a discussion respecting the merits of
the numerous methods of treatment which have been proposed
by physicians for the cure or alleviation of this grave
disease, I will devote a little space to the consideration of
the complication to which Rheumatism gives its just
dreaded reputation, viz. the affection of the heart.

I remember to have heard Dr. Living say, "in rheumatism, the disposition to cardiac complication, is in proportion to two things, 1st. the juvenility of the patient, 2nd. the febrile disturbance. The justice of this remark is amply verified by the experience of all who have observed much of this disease."

That the disposition to cardiac complication is proportional to the febrile disturbances is sufficiently demonstrated by such statistics as the following.

Dr. Fuller states that "as many as 114, out of the 130 cases of recent heart affection observed among the rheumatic patients admitted into St. George's Hospital during the time I held the office of Registrar, occurred in the acute form of the disease."

M. Brouillaud mentions 114 cases of Articular Rheumatism, among which there were 74 of great or medium intensity, and 40 of a slighter description. Amongst the first there occurred 104 in which the existence of Pericarditis or Endocarditis was certain, and 3 in which it was doubtful, whilst amongst the 40 of the second class, its existence was only once discovered.

That the heart does sometimes suffer in the milder cases is not to be doubted, but I am inclined to think that in many of these cases there is no permanent organic mischief resulting from its affection.

From the foregoing remarks it will I think be seen that the temperature of the body, as ascertained by thermometric observations, is of no slight value to the physician, as influencing his prognosis respecting the course of the disease.
That youth should predispose to cardiac inflammation is to be expected, for the heart's action is quicker and more readily accelerated than in more advanced life, and I have already adverted to the fact that those structures which are subjected to continuous exercise, are more liable than others to suffer from the effects of the rheumatic fever. Dr. Hunter, in his Handboof of Physiology, gives the following table, which shows the diminution of frequency of the heart's action from the commencement of life.

<table>
<thead>
<tr>
<th>Age</th>
<th>Average Number of Pulses in a Minute</th>
</tr>
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<tbody>
<tr>
<td>In the embryo</td>
<td>150</td>
</tr>
<tr>
<td>Just after birth</td>
<td>from 140 to 130</td>
</tr>
<tr>
<td>During the first year</td>
<td>from 130 to 115</td>
</tr>
<tr>
<td>During the second year</td>
<td>from 115 to 100</td>
</tr>
<tr>
<td>During the third year</td>
<td>from 100 to 90</td>
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<tr>
<td>About the seventh year</td>
<td>from 90 to 85</td>
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<tr>
<td>About the fourteenth year</td>
<td>from 85 to 80</td>
</tr>
<tr>
<td>In the middle period of life</td>
<td>from 75 to 70</td>
</tr>
<tr>
<td>In old age</td>
<td>from 65 to 50</td>
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</tbody>
</table>

In women also, the heart is more easily excited, than in men, and hence we find in an abstract made by Dr. Fuller, of 246 cases of acute Rheumatism, in 114 of which the heart disease was of recent origin, that Pericarditis occurred once in every 7.7 men, and once in every 5.2 women. Endocarditis again, occurred once in every 2.4 men, and once in every 2.1 women.

I am unable to confirm Dr. Fuller's experience, that heart disease is most frequent in those who are pale and weakly, or who have been exhausted by previous illness, or by repeated bleeding, for although it is certain that all
That all these conditions promote to a most marked degree the irritability of the heart, and the consequent tendency to paroxysms, I have been much surprised to find that of the cases of acute rheumatic, complicated with cardiac diseases, which I have more specially observed, nearly, if not quite as many were those of strong, robust, and feeble anaemic patients as occurred in pale or weakly subjects.

I have already enumerated two of the forms of disease from which the heart is liable to suffer during the course of this disease, but there is still another, viz., the formation of fibrous vegetations on the valves and lining membrane of the heart, formations which may be quite independent of endocarditis, and hence not diagnostic of its existence. That they do sometimes result from endocarditis, I do not deny, but that they do occur independently of inflammatory action, was demonstrated to me at a post-mortem of a girl, age 19, in whom there had been no trace of rheumatism, and in whom there were no symptoms of cardiac inflammation during life, nor any trace of it after death. In this girl, the existence of cardiac valvular disease was easily recognized although the vegetations were very faint. The opening the heart, vegetations in masses the largest I have ever seen were found attached to the mitral and aortic valves. Large fibrous masses were found in other organs, as in the spleen and kidneys.

These masses, which, by the way, are not as very uncommon, have been explained by the supposition that particles of fibrous matter are broken off from the vegetations, and carried along with the stream of blood to distant parts of the system.
I believe rather, that they are due to the same cause as the vegetations on the valves, viz. an anomalous tendency in the blood to coagulate. Masses do undoubtedly separate from the primary vegetation, now and then producing the most symptoms, and cause sudden death; or they may be dissolved, and pass away. Happily their separation is a rare occurrence.

Pericarditis. Should this view be correct, the formation of these vegetations in Rheumatism, where the blood is proved by direct experiment, to be hyperemic, is not to be wondered at.

The coexistence of endocarditis with this disposition to coagulate, favors the formation of these vegetations, for roughness is produced, by the effusion of lymph on the surfaces of the valves and elsewhere, added to which, there is very frequently an obstruction to the onward flow of the blood, from valvular difficulty.

Pericarditis and endocarditis although frequently existing at the same time, occasionally occur singly. It is however rare, for extensive rheumatic pericarditis to run its course without concurrent endocardial inflammation. Of the two lesions, pericarditis, in its immediate effect is by far the more dangerous, and calls most urgently for speedy active interference, but the fury of its attack, being arrested, its remote effects are by no means so loose, as those of endocardial inflammation. But will they bear comparison with the acute Category of diseases to which endocarditis gives rise.

It must however not be supposed that pericarditis is
altogether harmless as regards the future of the patient, for Mr. Watson writing on this subject says, "that other structural changes will soon, or slowly, develop themselves, and first render life burdensome and full of suffering, and then compell the patient to an earlier frame than might else have awaited him."

No doubt the adherences between the two surfaces of the pericardium embarrass the heart's action, but to a far less extent than might be supposed, when they are universal, or formed between parts of the pericardium, which are naturally in opposition.

I remember one case, which was not under my care, in which, on post mortem examination, the two surfaces of the pericardium were found to be universally adherent, and yet during life there were no distressing symptoms. Indeed the boy died from Bright's disease of the kidneys. In this case there were three distinct layers of lymph, which could be peeled from the surface of the heart, and I presume to former attacks of pericarditis.

When the adherences occur between those portions of the pericardium which are not necessary in opposition, they much interfere much with the heart's action, and thus lead to imperfect circulation of the blood with its consequences.

Endocarditis, on the other hand, by its effects, at once interferes to disturb that beautiful adjustment between the power and its work, which exists in health, by interposing obstacles to the free flow of blood, and hence hypertrophy and dilatation of the heart, are almost certain to be produced before very long, and these will as certainly be followed by
imperfect aération of the blood, engorgement of the whole visceral system, dyspnoe, congestion and the like.
I have no reason to consider the physical signs by which these formidable lesions manifest their existence.

I think that in Rheumatic Pericarditis the first thing in variability complained of by patients is a sense of uneasiness, which becomes actual pain more or less severe as the disease advances, in the precordial region. This pain is increased by inspiration, and greatly aggravated by coughing.

The countenance of the patient undergoes a marked change, assuming a worn and anxious expression, and the head is often tossed from side to side in a restless impatient manner. Any pressure however slight on the heart causes much pain. The dechirures is generally absent. The pulse may be strong and full, or weak, rapid and intermittent.

With reference to the earliest or dry stage of pericarditis, Dr. Stokes has ascertained the impossibility of its discovery by physical signs. Dr. Walch however states that "During the dry stage, the extent of visible impulse is greater than normal; the impulse as felt is too feeble, of beating rather than heaving character, and successive impulses are of unequal strength; the action is suggestion of excitement. Gliding friction sounds may be occasionally caught; and even a sharp, though feeble scraping sound, if there be a prominent tuft of dilated capillary vessels."

I have been able to verify Dr. Walchi's statement to my own satisfaction in more than one instance.

After a short time, there is no difficulty in hearing the sign
par excellence in pericardial friction sound. This superficial "friction" sound varies in character, and has accordingly been differently described by different authors, as grating, coarse rubbing, grating, scratching, creaking, squeaking, and prolonged whistling.

Pericarditis may be present without friction sound, but then one of two things must have occurred, either that the two layers of the pericardium have become separated by fluid, or else they have become adherent to one another by means of lymph interposed between them.

The friction sound continues audible longest, and is located closest to the base.

The value of an early auscultatory examination of the chest cannot be overestimated, as it is by comparison that we are enabled to make our diagnosis for as Dr. Guthrie says, "It is only when the rubs"...
interested spaces, I have several times seen a very well marked undulating impulse, but I do not think this of much importance for when the chest walls are very thin, and the heart action is visible over a considerable space, an appearance not unlike undulation is presented to the eye. It is, however, a valuable auxiliary, when taken in connection with other symptoms.

In the earlier stages, pressure on the chest walls, will sometimes by displacing the fluid, reproduce, or rather resemble the friction sound which has recently disappeared. Another important sign which we gain by inspection, is the position of the apex of the heart, which as effusion increases will naturally be at a higher.

 Auscultation lends valuable aid to diagnosis, for if we listen at the lower part of the cardiac region, we find the heart sounds, dull, indistinct, and distant, but as the base is approached, they become distinctly louder.

Friction precedes may now and then be felt. In one case at the hospital, where the friction sound was so loud as to be distinctly audible without the aid of the stethoscope, the friction was very palpable.

In the stage of absorption, the dullness falls, the apex of the heart regains its normal position, and friction sounds may reappear.

I pass now to the physical signs of acute Carditis, leaving any reference to the treatment for a time.

Whereas in pericarditis, percussion affords us the most reliable information, in acute Carditis, the stethoscope, if we know the previous condition of the heart, gives us an indication of the commencement of the disease.
The diagnosis is based upon cardiac murmurs, accompanied with peculiar excitement, and endocardial murmurs, occurring in a person presumably free from prior endocardial disease, and presenting no other obvious acute affection to explain the pyrexia.

I shall not attempt to discuss minutely the mechanism by which these murmurs are produced, nor enlarge upon the murmurs themselves, but content myself with stating that they are produced by an interference with the onward flow of the blood, either by its obstruction, or by regurgitation, owing to incapacity of the valves, or by both combined.

The murmurs of pure Aortie Endocarditis are arranged by Dr. Walsh in the following order of frequency—(1) Aortic obstruction, (2) Aortic Regurgitant, (3) Aortic Rejuyitant, (4) Aortic obstruction and Aortic Regurgitant together, (5) Aortic obstruction and Aortic Regurgitant together—Pulmonary stolic and diastolic murmurs are in a marked rare.

The immediate Prognosis of Rheumatic Pericarditis is generally not unfavourable, if the patient has been previous healthy, and the disease is discovered early and promptly attended to. I have already referred to its remote effects.

With regard to endocarditis, Dr. Walsh writes that an inelastic Endocarditic Murrur, holding on from beginning to end of the acute disease near totally disappears. The Remote effects, vary from very serious vascular diseases, with the distressing train of symptoms.
evidences by them, to the mere existence of a simple disease, without any positive cardiac functional disturbance, no mention of palpitation occurring even under severe exercise.

The treatment of these two lesions cannot consistently be passed over unnoticed, although such digressively judgment of opposite opinions are held by those whose opinions deserve respect, Dr. piles asserts that rheumatic pericarditis in the great majority of cases terminates favorably, as well that the proper mode of scientific treatment adopted.

Again, Dr. Watron writes, that in a large proportion of the cases, whether they be treated well or ill, or not treated at all, the patient will seem to recover.

Bearing this in mind, although I point out that there are cases in which the most prompt and decided treatment is required, I think that in the vast majority of cases, the heroic plan recommended by some is unwarrantable.

Of the various modes of treatment adopted by the profession, I think that bloodletting deserves primary consideration, for, if I mistake not, it used to be the sheet anchor of former years. By its indiscriminatory use however, and the degree to which it was pushed, it decreased from being a confidence has lost the confidence of the present day, although I believe that there are cases where moderate venesection is unquestionably beneficial, but it does appear to me that the lavish repetition of excessive venesection, as upheld by Dr. Hope, was a most unwarrantable experi-
expedition of the vital fluid, which it would take years to restore.

With regard to the administration of Mercury, Dr. Fuller writes: "It is obvious that in case of Rheumatic Pericarditis occurring in a strong and healthy person, can be safely treated without Mercury."

Although I have seen many cases of Pericarditis occurring in the course of Acute Rheumatism, in strong and previously healthy patients, I think I may safely say, that I have never yet seen a deliberate attempt made to induce phlegmism, and very seldom have I seen it administered at all, unless at the onset of the Rheumatic attack, to evacuate the bowels, yet I have never seen life sacrificed in consequence.

So far from preventing it, Pericarditis has never come on during calcification according to Dr. Parker. Dr. Christian in the course of his admirable lectures on Opium, referred to a case of Rheumatic Pericarditis, in which one enema carried to the verge of syncope, combined with the immediate administration of forty minims of Laudanum, was followed by the most marked amendment, both as regarded the physical signs, and the amount of suffering.

The cases in my opinion in which moderate blood letting is not only justified, but even required, are those occurring in young, plethoric, robust, and previously healthy persons, in whom secretion is insufficient, when pulse is full and bounding, and whose skin is hot and burning.
It is hardly necessary to mention, that resection is contraindicated, when the fullness of the pulse is due to hypertrophy, or its hardness to degeneration of the coats of the arteries.

In the greater number of cases however, I think that all the depletion which is necessary, may be most advantageously performed by the application of a few leeches to the precordial region.

In all the cases, where active treatment was required this is the plan which I have been followed by the most uniform success, especially when combined with the application of eucrispium and hot fomentations.

I have invariably found that, provided the patient was not too young, leeches are attended with beneficial results, but I do not think that they possess much advantage over the repeated applications of eucrispium, and I have observed that they are very much calculated to interfere with the equanimity of the clinical observer, by interfering with the thorough examination of the precordial region.

In cases where there is any tendency to disquietude or excitement, opium is especially valuable.

Rest and abstinence are essential.

Some cases of pericarditis, take on an aesthetic type, and in these, a judicious administration of stimulants should displace all antiphlogistic remedies.

In conclusion, the practitioner should beware of running to either extreme, and recalling the old proverb "De medicis tute sinimus ibi", Bear in mind...
that very many cases will run a most favourable course, if simple hygienic measures are the only
adaptations to Nature's healing power.

If the power of the Physician to arrest the course, or to
remove the consequences of Eudo carditis, were proportional
to the accuracy with which the well trained ear of
the Auscultator detects the invasion, and traces the
progress of this dangerous disease, the triumph of our
art would indeed be great, but I think it must be
confessed, at present at least, that our knowledge, as far
as regards this lesion, is not power.

The treatment of the disease therefore, is reduced to
the alleviation of the suffering which it entails, and
hence the symptoms in all their varied forms, must
be our guides for the special modes of treatment, which
the exigencies of each individual case require.

The patient's strength must be kept up by a light
nourishing diet, and tonics. The secretions must be
carefully attended to. All excitement and undue
exertion must be avoided.

If then he says, i.e. Walch, to suspect the forma-
tion of intra-cardiac blood concretions, the repeated
pouring in of Liqueur potassae and bicarbonat of potash
seems, theoretically at least, worth trial.

When it seems lapsing into the Chronic stage, he
recommends the use of Soda, of Potassium and
Liqueur Potassae, with bitter tonics.

Strict sedatives of the heart, action are constantly
required, as Belladonna, Hydrocyanic Acid or Digitalis,
It may be thought that the pulmonary complications which not infrequently occur during the course of Rheumatic fever, are worthy of more than the mere passing notice which I have bestowed upon them. My space does not permit me however to enlarge on this matter, further than to state my belief that they, like the cardiac complications, are manifestations of the general constitutional disease, owing to the large amount of fibrous tissue which enters into the composition of the pulmonary textures, and hence that deduction, that the treatment for the constitutional disease will also be the remedy for the local affection.

The enumeration alone of the various plans of which have been adopted in the treatment of acute Rheumatism, would swell the number of my pages, were that my object, but as no practical end would be attained by such a procedure, I will at once proceed to discuss the more important methods successively, as briefly as may be, and finally endeavour to draw some practical conclusions from my review.

Commencing with the simplest, I will first allude to the "Expectant treatment," or in other words, trace the natural course of the disease when the patient being simply placed in favorable hygienic conditions, the disease is left to nature and her devices.

Dr. Fuller writes thus, "But as, when uncomplicated by cardiac affection, the disease usually terminates sooner or later in recovery, and sometimes subsides with marvellous
rapidly under every variety of remedy, it is obvious that no sound inference can be drawn as to the success of any particular method of treatment, unless such treatment has been adopted largely, and has been attended with tolerable uniform results.

I think that in forming statistical tables in order to show the success of any particular plan of treatment, one grand point has been overlooked, viz. the existence of two distinct forms of Rheumatic Diathesis. These are characterized by Dr. Lacycock in his "Medical Observation and Research," 3rd edition, p. 105, in the following terms. Two forms will be observed: the vascular, allied to gout, and the estrous, with external characteristics of gout. In the latter, there is no fluidity, but rather of congestion; a predisposition to scarification, and an escape inflammatory in observed; to lymph depends in the vascular system, and to local disease dependent on arteries or on travelling lymph plugging the vessels (angiolimia).

I must confess that formerly I was quite at a loss to explain how it was that patients of the same age, placed in the same ward, exposed to the same external circumstances, and treated in the same way in every respect, should present such different results.

Without pretending to prove or uphold my belief in Dr. Lacycock's views as to diathesis by my own observations, it is sufficient to state that I look up to them for the explanation of the different terminations of the disease which have formerly puzzled me, and I think
that the observation at St. Luke's which I have just quoted will be found more particularly correct if applied to the
Seemous Diathesis alone, then it is as it at present
stands. I will endeavour to illustrate this by notes
of cases.

Nature of London. Residence 40 Newington Street, Somers Town.
Neighbourhood bad. Locality crowded. House dust
Fattin living. Has had Rheumatism. N.B. the father who was
in hospital at the time these notes were taken, died about a month
after, from a malignant tumour which originally formed in the cheek
of the father.

Further living. Strong health. No history of Rheumatism.
Brother of living. Age 10. In good health, no Rheumatism -

two deceased, cause of death, scarlet fever and diphtheria.
This is Patient's 1st attack of Rheumatism - was quite well on Aug. 25
(Tuesday). Aug. 26 felt pain in left shoulder on waking (attributed by
Patient to getting wet on Sunday before attack). Aug. 27. pain
in both knees, but kept at work till Aug. 4. when felt pain in fingers of right
hand which swelled up and became red. Sept 1. Right shoulder and arm
became affected and has remained very painful ever since.
Present state. Sept 3. Patient lying on back, but cannot re-
main long in that position, without wishing to move, on account
of severe pain.
Hair dark brown. Complexion darkish yellow.
Eyes dark, prominent. Lips full - slight moustache on upper lip.
When at rest, has pain in back from between scapula to axillae.
On movement, has pain in both shoulders, down right arm,
right elbow which is very red and ooze ulcerous process, wrist and
fingers of both hands; both knees acid ankles.
Tenderness, redness, swelling of both wrists, and dorsum of right hand. The first phalangeal articulations of fingers of both hands are swollen, red and tender, especially that of left hand. Both knees hot & painful. No tenderness or swelling, redness over each patella.

Tongue clean. Some thirst. Appetite bad. Bowels open by Dr. Riis. 3½, administered yesterday.

No pain in head. No pain in chest. No cough. Pulse 95. Full, regular. No eruption of body except neck and chest. Anemia. Numerous red elevations varying in size from small pinheads to large bean. Raised, rather hard, redness sharply defined, which first appeared Aug 31st. Their tint varies: redness, some are deeply other bright. In many places these are grouped together in patches the size of half a crown. These patches are most seen on arms, hands, legs, and dorsum of feet. They are fewer on legs than lower part of abdomen than elsewhere. They are seen both on flexor and extensor surfaces of arms, and a few on face. They itch slightly. The redness disappears on pressure.

Heart: impulses felt at upper border of 5th rib. 7½ inch below nipple, at a little external to vertebral nipple line.

Heart: dulness. Upper border - upper margin of 2nd rib. This dulness is almost at upper border of 3rd rib. Right margin, difficult to detect. This is extends to right border of sternum. Left margin passes through nipple.

Soft systolic murmur audible at junction of 3rd left cartilage to sternum. Audible in 2nd left interspace, unclear audible in 2nd right interspace. Loud Murmurs. Audible immediately under left clavicle, close to sternum. This is heard, though with diminished intensity into acromial angle.
The murmur under pressure is very sudden and great diminution on passing down, thus, over 3rd left rib it is scarcely audible. It is difficult to say whether the murmur from 2nd interspace is conducted from this murmur, or from the heart. The murmur at the base is that immediately below clavicle, and certainly not one and the same murmur, for there is a point midway between where the interest is felt, than at either of the above places. Murmur at base is lower pitched than that at clavicle. I hear also a murmur, along middle border of right clavicle, which is audible to abnormal angle, synchronous with systole, and which is somewhat louder than corresponding murmur on left side at acromial apex. This murmur is lower pitched than on left side. Respiration both rapid. No prolongation of expiration.

Sept 4th

This will - perspiration profusely - dreams much - no wandering. Skin hot and dry, no endurance. No pain when quiet at rest. Pain as yesterday, except keener which on leaning at all tender on manipulation. No pain in head, nor least of weakness in chest. Eruption noted yesterday rather more abundant on chest. Tongue dry, thickly furred. Appetite bad - Pulse 80 - regular, full. Area of cardiac dulness unaltered. Murmurs noted yesterday unaltered. A soft systolic murmur is heard at left apex, which is quickly lost on passing upwards. The murmur under left clavicle is certainly increased of pressure Sept 5th

cardiac dullness. Upper margin - upper border of 2nd rib. Lower margin - lower border of 5th rib; right border to index of right edge of sternum. Left border passes just external to midsternum. Right costal margin at apex, varying much in intensity, will some parts of heart quite inaudible. A costalic murmur also audible at base, but a point midway between base and apex where murmur is least caught. No murmur at 2nd right interspace. A slight murmur audible at 2nd left interspace. Loud systolic murmur immediately under left clavicle, from here, clavicular articulation to acromial angle. Murmur also audible, though his intensity passing outward from sternum to right acromial angle. No cough, no expectoration, no albumen in urine. He has an egg.

Left 6th.
Last night complained great pain in both sides which left him about midnight. After this, slept well. Respired freely, but not so much as heretofore. No pain, tenderness, nor stiffness anywhere except in phalangeal joints of left hand and neck stiff and slightly swollen. Eruption has extended very much since last report. The places where it is most prominent, are the backs of hands, sternum of feet, inside of thighs. Its intensity of color is easy when diminished. Tongue clean, moist. Appetite fair. Bowels at open since left 6th.
Pulse 72. Regular. Moderate volume. Apical and precussion dullness as at last report. No murmur is now audible at apex. The murmur noted previously as audible at 2nd left interspace is still audible, but less loud. Distinct systolic murmur audible under both clavicles from sternum to acromial angle.
Oct. 7th


Oct. 8th

Felt pretty well, not weak. Uppers good. Sputum fast disappearing. is now all clear viscid, & of peculiar yellow color. No pain. There is distinct effusion into both knee joints. Apex beats at times. Slight paroxysmal cough unchanged. No murmurs audible at base or apex, nor in either if 3rd interspace. Distinct systolic murmurs audible under right clavicle close to clavicle, audible at acomial angle. Slight systolic murmurs audible under right clavicle to acomial angle. Heart still contains free from albumen.

Sept. 10th

Weight precisely 56.50 at 13 lbs.

Chips well, very slight perspiration. No pain; no stiffness. By report. Pulse 64. regular. Active and full. Tongue clean. Appetite good. Stool well formed, nor indicates former loss of protein. No murmurs at base or apex. 2 1/2 count.
Sept. 12th
Discharged
Det. Chek 3 Milk 0'2. Rf. Tea 0'7. Treatment Chk. 3. cr. Ncimi 3'7
5' ". " Egg
7' " Extra Beer 0'2.
The mixture above was much water coloured with a little burnt sugar. On admixture the body temperature was 108° 6, it exceeded once in 108° 7. The first permanent fall in temperature was on the evening of Sept. 5th when the thermometer indicates 103° 5 and the following morning it has fallen to 99° 8. Comparing these facts with the history of the case, the 6th I think I am warranted in fixing the date of convalescence, viz. the 12th day of the advent.

The next case to which I will refer, is one which presented a striking similarity to the last, both in the course of the disease, and in its fatal results. The patient residing in the same section as the boy Clark, in fact the physician’s description I can from his words and extracts equally well for both—Being unskilled in medical matters I am unable to express them; the chief difference between these two cases suggests me to append a copy of the temperature sheet, which is, as far as it goes, a faithful record of the case, and an example of the distinctive form of report to which I am already alludes.

Table of Temperatures

<table>
<thead>
<tr>
<th>Date</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 10</td>
<td>102°</td>
</tr>
<tr>
<td>Sept. 11</td>
<td>104°</td>
</tr>
<tr>
<td>Sept. 12</td>
<td>109°</td>
</tr>
</tbody>
</table>

From an examination of this condensed report, it will be seen, that on the 16th day, there was a decided, and permanent fall of temperature.

He began to show signs of convalescence on the 13th day, and gradually improved, so that he left the Hospital quite well, on the 35th day after his attack. He was kept in, to illustrate the disappearance of the purulent symptoms to which I have already alluded, which were well marked in his case.

It is a fact worthy of notice, that although the lad was, at all appearances, perfectly well, and entirely free from pain for at least a fortnight before his discharge from the hospital, yet his temperature generally rose at night to 99° although the mean temperature for the 24 hours would be about 98° which is fixed upon by Dr. John Doug as the average temperature of the human body, when in health, as indicated by the thermometric placed in the axilla.

It would have been very interesting to have accompanied of observation, whether, in the case of this boy, before his attack of rheumatism, the temperature were at night, and it has struck me, that a series of thermometric observations made on healthy subjects would prove a valuable contribution to medical science.

I could bring forward other cases which present strong points of resemblance to those already mentioned, but will content myself with having thus glanced at two, which will serve to illustrate the expectant treatment with its results, as applied to patients of the
Chronic Dehiscence.

I regret much, that from the inaccessibility of my notes, I am unable to produce there of a case in which the same mode of treatment was adopted. The case was that of a boy named Richard Devere, aged 10. whose occupation was that of an engine boy. He was robust, well built lad, healthy looking, and had previous enjoyed perfectly good health.

His complexion was fair, and facial vascularity well marked. On admission, on the 3rd day of the disease his temperature was 103 ½ F, and it was not till the 19th day of the disease that he could be pronounced convalescent. After that, he had several relapses, in which the various most approved modes of treatment were adopted, but with very slight and temporary success. So he was confined to his bed till a leucœma relapsed when left the hospital at the end of October.

Applying these deductions which may be made from the results of the expectant treatment in the two great classes into which, according to J. Haycock’s classification, I divide the disease, we have, I think, the key but one to the apparent wonderful efficiency of a remedy, it may be in a succession of cases, and the failure and disappointment which may attend its administration in the any one case.

Let me glance for a moment at bloodletting.

“Prelection” says Dr. Graves in his Clinical Lectures last edition, page 157, “is here our sheet anchor. Happily for humanity at large, such is not now the
Teaching of them in authority, and I fear that if the truths
were known, countless numbers of human constitutions
could rise up in judgment, against the indiscernible
and almost barbarous use of the lanceet in bygone ages.
I have previously adverted to these cases where I
believe sanguination to a moderate degree is advisable,
when speaking of puerperalitis, but it should be low
some in mind that it is rare warranted to bleed
for pain alone.

The use of Mercury to produce distillation or an
approximation to it, in Rheumaticism, has I think
been amply proved to be rather an abuse of this most
valuable drug, for it neither controls the disease itself,
nor is it a prophylactic against cardiac lesion.

The treatment which I believe to be in highest
repute at the present day, is the administration of
alkalies and their salts. By some this is truly
pushed to an extreme, and many indeed are loud
in the praises of the virtues of this method.

A gentleman for whom I entertain the greatest equal
respect, was fortunate enough to have a series of cases
of acute Rheumaticism which were brought to a most
favorable conclusion by the apparent effect of the admi-
istration of the Decaerat of Muriel. It is
never more hours until the urine became through alkaline.

No wonder then that he became a zealous advocate
for this treatment, but I have seen few that have
sustained faith in his favorite remedy, not long
shaken, themselves drawn to the use of other Securities
(a small pharmacopoeia in themselves) unsuccessfull.

Opium again as a remedial agent in acute diarrhea, still has its adherents, but I have seen it fail more than once, severe pericarditis coming on even when the pupils were deeply contracted.

If then these present remedies, which I believe will apply equally to all other remedies, be tried, how are we to treat the disease successfully?

In both diarrheas, perfect rest of body and mind are essential.

The bowels should be well cleansed out, and future accumulation carefully avoided, remembering however, that hyperperistalsis debilitates the patient, and renders their occurrence more liable to cardiac, and other intercurrent diseases.

Bear in mind that the tendency in the diarrheas is to loosen, the chief point is to allay the pain, which may be done either by opium, or better by Indian hemp.

In the vascular diarrheas on the other hand, it will be found that a combination of remedies will be required. Should bleeding be indicated, it should be followed by a full dose of opium.

Here, as in the former class, astrinac purgatives must be avoided, although perhaps it is more necessary in these, than in any other cases, to attend most carefully to the intestinal and other secretions.

The Berberis of Jowisz may be given with advantage, but care is requisite in its administration.
The full doses recommended by Dr. Barrow and others, must I think, have some effect on the kidneys, and hence if there is any tendency to renal disease it will be safer not to give them at all.

Instead of the half dose every 2 hours, 1/4 in the 34 hours will be found sufficient. This may be advantageously combined with Morphine or the Extract of Lacteus Hemp, to allay pain and promote sleep.

Of Colchicines and its effects, in Acute Rheumatism, I can say nothing from personal experience, but should certainly give it in those cases where there is any tendency to the jointy disease.

Indeed, from the observations of no less an authority than Dr. Christie, I am convinced that it may be very often administered with great success in this disease, and shall not hesitate to give it fair trial, when opportunity presents itself.

I have no faith whatever in the ministration of Diet for so far as I have seen, it has failed completely in producing any effect, either in shortening the attack, in mitigating the severity of the patient's suffering, or in warding off subsequent complications.

The diet should, throughout, should be light, but nothing so as to support the strength of the patient.

I have seen great relief experienced from topical applications to the joints affected. The most useful, perhaps, is a saturated solution of the Carbonate of Soda, with laudanum — luckily enough. I have witnessed almost
Welcome to Figure 3, a summary of the first section.
immediate relief, in case when the joints were so painful that they could scarcely be touched without increasing the patient's suffering, from rubbing in the following liniment, etc.

R.
Chloroform

laudanum

Nos der. add.

Quint. Ac. nit.

der. laudanum

M. first liniment, qus deve infricere partes dolentes.

An essay on Rheumatic, will be desirably emended incomplete, without some notice of its important and frequent companions, chorea, which is so intimately connected with it. But this as also the subject of the disease, I must leave for, were I to enter thereon, the length of my paper would be increased to an icediffinextent, as both involve laborious extended reading and hence I must not venture on their discussion fascinating and deeply interesting though they certainly are.

And now I tender this my thesis for merciless criticism, fully conscious of its numerous defects, but yet hoping that perhaps hits any defects it may lead some other aspirant for the honours of his ancestors to become convinced of the fact, that to attain to the
successful practice of his noble profession, he must constantly bear in mind that
"Avis medica, tota est in Observationibus."

[Signature]

Edmund Nash