ON

RHEUMATISM

ARTICULAR AND MUSCULAR

MORE ESPECIALLY AS REGARDS THEIR VISCERAL COMPLICATIONS.

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Among the extensive and varied subjects of medical study, it is difficult indeed for a beginner to concentrate his ideas upon one subject, or discover anything original; more especially, as in all likelihood, he is only pursuing the footsteps of some of his predecessors. So many treatises have been written on every subject, that we must now content ourselves with giving a summary of what has been already written; adding the results of our own observation as we proceed. In such a manner do I propose treating the common disease Rheumatism.

Rheumatism is certainly the most common of all the diseases that afflict the human species, and on this account has attracted the attention of medical authors from a very early date. By the more ancient of these authors, it was not at all understood; they described it very summarily. According to the memorable theory - its real cause not being known by them - Hippocrates Confounded it with Gout, believing these two diseases
to be much more intimately connected than they really are. It was not till the days of Brillouin that a line of demarcation was made, between these two manifestly distinct diseases. After him, about the beginning of this century onwards, we find able treatises on it by Cullen, Landamore, Chomel, and Cholley. Bouilland, the still honoured professor in the hospital of La Charité at Paris. — Although it is amongst the most common of diseases, yet its nature has baffled all investigations longer than many a disease less frequently to be met with, and even now, disputed and controversies are of every day occurrence regarding its cause and mode of treatment. — The word Rheumatism is derived, primarily from the Greek, ῥέοντος ἰαλοῦ, and thus seems to have been first applied to designate a disease, which the ancients must have considered due to some defluxion; and very probably was first used as its name by some follower of the humoral theory. — The modern doctrine as
generally held at the present day is, that it is a disease due to an increase of some acid in the blood, generally supposed to be lactic, but without the deposit which characterizes gout. The tissues which are always affected, viz. the sero-fibrous, are composed principally of albumen and gelatine, from which lactic acid can be formed. Amongst individuals we find some more liable than others to be attacked by it; we find some more easily affected by change of weather, exposure to cold, damp, in fact, not a few of the rheumatic diathesis are as good prognosticators of changes in the weather as any barometer. In order to facilitate the examination of so extensive a disease, it is necessary to divide it into parts, and examine each division separately, and here we again meet with difficulties and disputed. Some have taken its duration as the characteristic by which to divide it; others again have taken its seat as their point of division. According to the first, we
have Acute and Chronic Rheumatism; and
according to the second, Articular, Muscular,
and Visceral Rheumatism; but in this
description I do not intend to adhere
strictly to either of these divisions, but to
treat it as follows viz. First, to describe
Acute and Chronic Articular, 2" Muscular,
and lastly Visceral, rather as a Complica-
tion of each of the others, than as a
Special form of the disease, and further,
to showing the difference between the Viscera
Complications of Rheumatism and joint
Acute Articular Rheumatism, as its
name signifies, has its seat in the
Articulations, and is characterized by
a pain more or less acute, in one or
dveral of the joints, accompanied generally
with Swelling, and sometimes with
Redness of the affected parts, and
almost always consisting with a febrile
attack of variable intensity. These pains
do not commence suddenly; but are
generally preceded by signs, and a
feeling of malaise, thirst, and want of
appetite, and locally, inability or
rather difficulty of moving the joints; then the pain commences. In every case the pain is not alike, in some it is of a dull character, in others lancinating, aggravated by pressure, but more so by any motion of the affected limbs.

When several joints are attacked simultaneously, we generally find a constitutional disturbance consisting with its constitutional what is called, Rheumatic Fever. This febrile attack is generally consecutive upon the Articular pains; although sometimes it precedes them by one or two days. This attack is characterized by a frequent, full, hard, and vibrating pulse; the skin is warm, often bathed, indeed generally in perspiration, with a peculiar sour smell; the tongue is whitish with great want of appetite; the bowels are confined; there is also often great restlessness at night, with sick headache. And the urine is diminished in quantity. This form of Rheumatism does not always remain in the part first
attached, but shifts from one joint to another, often going over the whole body two or three times before quitting it. These changes are most commonly effected during the night. The pains are generally more severe during the night than through the day, and if sleep does overtake the patient, he is generally awakened by an acute pain in the affected joint, caused by one of those automatic muscular movements, which often occur during sleep. There is no regular period of invasion and termination in this disease. As in most other diseases, for the pains very often leave and return with increased intensity. The intensity of the fever is generally proportionate with the number of joints attacked at once, though not invariably. So, as we sometimes find the fever remaining for some days after the pains have been removed, while, according to Bouilland, is due to some visceral complication, as pericarditis, or endocarditis, which is still keeping up the constitutional disturbance, but in general, we find
that as the articular pains decrease so does the fever. The erratic character of rheumatism does not present itself in every case, one joint may be attacked, and the disease may remain persistently in that joint. When such is the case, the pain is of a more intense character, but there need then be no apprehension of a metastasis to any of the internal organs as the heart. Instead of that, we find it then causing a chronic abscess either upon or in close proximity to the affected joint. Acute articular rheumatism has no invariable duration, it may last only for a few days, or may linger for months; no definite rule can be laid down on this point. This form of rheumatism is more than any of the others, accompanied by visceral complications, and may be found proceeding to one or all of the internal viscera; but more especially those belonging to the circulation system, for which it seems to have a preference. We will first describe its action on the Centre of
that system viz. the heart. It attacks this organ and its coverings at three points;
1st. The Pericardium, 2nd. The Endocardium, and 3rd. the muscle itself of which the heart is composed. That acute articular rhumaticism is exceedingly liable to attack the heart, has been observed from an early date, but more especially towards the end of last century. It seems to have been first noticed by an English physician, Pitean, about 1788, who observed that affections of the heart and its membranes were more common among rhumatic patients than among other people. It is often very difficult to detect a murmur, or any other physical sign of rhumatic affections of the heart; as the signs are almost exactly the same as those of other organic affections of the heart. Moreover Endocarditis does not always show itself by appreciable signs. It may be so slight as not to alter the play of the Cardiac valves, or may be so very similar to the bruit heard in Aneurysmic patients as not to be distinguishable from it.
Of the three, Endocarditis seems to be the most common. Pericarditis takes the second place, and Myocarditis seems never to have any independent existence, but is found only in conjunction with either of the other two. Age seems to have an effect in producing these cardiac affections; as the greater proportion of cases are to be found among young people—more than a third of the cardiac complications are found in children below the age of fifteen. Above twenty, they diminish very rapidly. The intensity of the attack of the cardiac affection seems to be proportionate with the severity and persistency of the Articular pain. Although arthritis is found in some very slight cases, where the articular affection has been scarcely observable, we may have a rather sharp attack of pericarditis; yet, as a rule, the Articular pain and the Cardiac affection seem to be in exact proportion with each other. When the inflammation affects only one joint, it is very rare indeed to have any heart affection.
As I have mentioned before, in these cases, the disease seems rather predisposed to end in a chronic abscess over the affected joint. In general, the Cardiac affections seem to proceed and end simultaneously with the articular affection, although in a few cases the articular pains have been preceded by the Cardiac phenomena.

In examining a rheumatic patient, it is necessary to examine the heart at once and frequently, as often from the want of physical signs, it remains latent. After death, on examining the heart of a rheumatic patient, we find very distinct anatomical lesions, often within the pericardium; but still more frequently in the valves and edges of the Cardiac orifices. Between the pericardium and the heart, we often find a serous or sero-fibrous exudation (that is in less severe cases). This exudation may become plastic, and form adhesions between the pericardium and the heart, which it seems to have a much greater tendency to do in rheumatic cases, than in
other cases of pericarditis the fluid here found is found also to have the same acid reaction as the fluid found in the joints, and thus shows its intimate connection with the rheumatic affection. When the muscular substance of the heart itself has been involved, we generally find on a post-mortem examination an abscess in its walls, pointing either externally or internally. The most distinct lesions are however to be found when the endocardium has been affected, either upon the valves, or in the orifices. The mitral valve seems to be the most frequently affected; although we often find both it and the aortic valves affected simultaneously. The fibrinous vegetation found on the valves, are always found on the ventricular side. It has been disputed whether these fibrinous deposits are due to an inflammatory action in the valves themselves, or whether they are merely deposits from the blood, which is in this disease so charged with fibrin. I believe that the former.
is the real cause, for this reason viz. that on the autopsy of a patient who has died of rheumatism, we often observe these values to be more vascular than usual, showing that an inflammatory action had been set up in them. Subsequent attacks always increase these lesions, more especially in rheumatic cases. As these lesions are often latent, they very often furnish no specific symptoms so that we must be constantly on the watch, examining the patient regularly and frequently, both by percussion and auscultation; more especially when the fever seems to be out of proportion with the articular phenomena. We may be, however, often led to suspect it by the palpitation, by a peculiar pardinic expression of countenance, and by the precordial pain, which generally is symptomatic of its presence. In pericarditis by auscultation we hear a peculiar friction sound, accompanied by a feeling of a rubbing nature, when the hand is laid over the heart.
due to adhesions between the pericardium and the anterior mediastinum. When pericarditis is present, a peculiar change comes over the patient; he becomes inconstant and taciturn. In endocarditis we have the bruit which is common to all forms of endocarditis, whether rheumatic or non-rheumatic, and due to structural changes in the valves or orifices—this, however, is very much simulated by the bruit heard in anaemic patients; so that, the habit of body of the patient must be minutely examined before forming our diagnosis.

As to the cause of the murmurs—our prognosis in these cardiac affections is in general favorable; unless accompanied by some extensive disorder of the pulmonary organs; when they may result, in a great measure, to bring on a fatal issue. In pericarditis, unless the inflammation be very extensive, it is generally absorbed, and complete resolution in general is affected; but in endocarditis, although there is no immediate danger, yet the valves may be so changed as to bring...
on some incurable organic lesion, which may end fatally at some distant date. Our prognosis then would be favourable for the
present, but full of threatenings for the
future. These fetidous, increscences do not
always confine their deteriorating influence
to the heart alone; but becoming detached,
launched themselves into the current of blood,
and are deflected in all parts of the
system; so that by the intermediary agency
of the heart, acute articular rheumatism
is liable to cause serious injury to all
the internal visceræ, without calling in
the direct intervention of the general
disease itself. These increscences when
detached, being, as we have before said,
always on the ventricular surface of the
valves, escape into the arterial current;
and, if small, proceed to the extremities.
When they fill up the artery, causing
complete obliteration—this is called
Embolism. When the detached clot—is sufficiently large, it very often passes
upwards to the encephalus—where it
gets fixed in one of the cerebral arteries.
and obliterates it, causing hemiplegia of that side with consequent paralysis.

Or again it may proceed to the abdominal viscera, as the kidney, liver, or spleen, most frequently the kidney. On examining the body of a person who has died from nephritis, we very often find these cardiac vegetations, and from this we may infer that the nephritis has been due to rheumatism. The spleen and liver are often affected in a similar manner. The right ventricle may also become the point of departure of these clots, causing of course a pulmonic embolism, but this happens exceedingly seldom. The symptoms of these accidental affections are exactly similar to the phenomena observed in ordinary inflammatory affections of these organs, and of course do not require to be described here.

Besides these vegetations found on the valves, we often find polypoid growths in the interior of the heart itself, sending ramifications into the mouths of the great vessels near the heart.
True, becoming detached, cause almost in--stantaneous death, by ulcerating vessels so near the centre of the system--Authors are divided as to the cause of these growths.

Some have considered them due to a stasis of the blood immediately preceding dissolution, or, even after it--others, as Griselle, considers that it is during the circulation of the blood that they are formed, more especially in people who have had symptoms of cardiac disease during life; according to Boullard, it is one of the most frequent causes of death in particular phthisis pulmonarum, especially when we have symptoms and signs of endocarditis, by causing ulceration of some of the most important branches of the arterial tree. The lining membrane of the artery being precisely of the same composition as the endocardium, must, we would suppose, be liable to the same affections, but no satisfactory evidence has been given on this point. Some authors have described it, but it is more probable that the symptoms they
describe, was due to an embolism, rather than to acute arthritis occurring during the course of a rheumatic attack. The same only can be said with regard to inflammation of the bones. No satisfactory proof has been given of its existence as a rheumatic complication. We now come to examine how acute articular rheumatism, in its erratic course, affects the respiratory system. The authors of the last century, seem to have considered every affection of the respiratory organs occurring during an acute attack of rheumatism, as due to that attack. The metastatic character of rheumatism seems to have engrossed their whole attention, and made them believe that every other affection occurring during the course of that attack, was merely a metastasis of the articular phenomena. This, of course, was an extreme view, but writers nowadays have almost fallen into the opposite extreme, by supposing that all respiratory affections occurring during a rheumatic attack are only coincidental.
with it, and by no means a metastasis of it—Earlier authors always attributed any dyspnoea, or bloody expectoration occurring during the course of an attack, as due to a metastasis of the rheumatism to the lungs; whilst our modern writers would hold their concurrence to be merely accidental. Probably neither are right; but as is generally the case, the most correct conclusion would be obtained by taking the middle path—From statistics it has been observed, that rheumatism affects the respiratory organs almost, though not altogether, as often as the circulatory—It seems to attack the parenchyma of the lungs more frequently than the pleurae, or bronchi, and generally in concurrence with endocarditis or peri-carditis; more especially the latter—This rheumatic pneumonia gives no specific symptoms, as it remains latent for a considerable time, even until it be rather severe, and we can only infer its rheumatic character from some amelioration of the articular symptoms, simul-taneously with its appearance in the lungs
No specific anatomical lesions are to be found on an autopsy. Our prognosis in these cases is more favorable than even in common pneumonia; unless it be aggravated by some heart affection, and then indeed, the patient is in imminent danger of death. In rheumatic cases of a less severe character, we often find pulmonary congestion ensuing very abruptly, and in many cases end fatally, almost instantaneously. In general, we have no sign of its approach, the first noticeable symptoms being a sense of constriction and burning in both sides of the chest; respiration becomes hurried, and the patient cannot remain in the horizontal position; he must sit up, then there is noticed a slight cough, and bloody expectoration. If the case is to terminate favorably, he finds the asphyxia clearing away, sometimes quickly, at other times gradually; but, it is very apt to return and is always more severe in every fresh attack. It is difficult to diagnose an attack.
of this kind, from the similarity of its symptoms to those of cardiac disease.
In cardiac affections, however, the attack is less sudden; whilst the precordial pain is more severe. Moreover, on auscultation, we would have the Cardiac Systole, which we would not have in pulmonary congestion. It is also simulated by asthma, in both we have great dyspnoea, but of a different nature; the Asthmatic Dyspnoea is much greater during expiration than inspiration; whilst in congestive dyspnoea it is more uniform. It may also be mistaken for pulmonary embolism, but in embolism although there is violent dyspnoea, yet the air passes freely enough into the lungs, as there is no obstruction to the entrance or exit of air; the cause of the dyspnoea being obstruction to the passage of venous blood from the heart to the lungs; whilst in pulmonary congestion, it is the opposition to the entrance and exit of air, which causes the dyspnoea. Our prognosis in this case is very unfavorable, from the
sudden and almost immediately fatal termination, which so often ensues—Proceeding from the most internal portions of the respiratory tract, we next come to the larynx, and here we again find a rheumatism, affection, viz. laryngitis; the patient, at first, complaining of a sore throat, with difficulty in swallowing, loss of voice; then suddenly, he is seized with a chill in the neck, and at the same time the internal symptoms disappear, thus showing that the rheumatism has shifted from the larynx to the neighbouring muscle. We now come to tubercle of the lung or phthisis pulmonalis—Two very contradictory opinions have been set forth, with regard to the relations existing between phthisis and articular rheumatism. Some believe them to be Correlatives, while others hold them to be completely antagonistic; that in fact we never meet with tubercle of the lung in persons of the rheumatic diathesis. As is generally noticed, the true state of the case lies
midway, viz. that they are sometimes found together and sometimes not, so that no rule can be laid down on the subject.

Having thus noticed the visceral complications connected with the circulatory and respiratory organs, we now come to examine its nervous complications, which we will divide into cerebral, spinal, neural, according to the seat of the attack.

I. Cerebral. Here it attacks the brain and its membranes; this has been called cerebral rheumatism. As in other rheumatic metastases, we have, when the cerebral phenomena commence, a great amelioration of the articular pain, as well as of the swelling, and reduces, which exists around the joints — Rheumatic meningitis is ushered in by a feeling of disgust, and fear, which precedes for a short time, the more characteristic symptoms, which however are not unusual in every case. — In some, we see it commencing with a brisk delirium, there is cognacous, and moves his joints freely, even those which are yet affected.
the pulse becomes more frequent, and an abundant sweat is noticeable. — This does not last long, generally a few days, but is succeeded by a sleepy state, then coma supervenes. And death closes the scene. This is generally accompanied by one of the cardiac complications, either pericarditis or endocarditis. — It generally comes on during the course of the second week — this is true rheumatic meningitis.

More rarely we have a slower and more insidious form of delirium, accompanied by more or less severe choreic movements, but this never occurs till the decline of the rheumatic attack, or even during convalescence. — In this form we do not have of necessity any cardiac complication. This may be called rheumatic insanity, since (according to Griesinger), when it remains, it has a tendency to produce melancholia.

— Again we may have rheumatic apoplexy, commencing with intense headache, ache, vertigo, then suddenly profound coma, & death in a short time.
Professor Youssoufian gives six forms of cerebral rheumaticism, viz. I. Apoplectic, II. Delirious, III. Meningitic, IV. Hydrocephalic, V. Convulsive, VI. Chorea; but these are only modifications of the same disease and differ only in minor particulars. On a post-mortem examination, nothing specific or definite has ever been found. In some, we have serous effusion, sometimes into the subarachnoid space, sometimes in the ventricles. In others, we find the membranes bloodless and of a peculiar pale colour, but as these are also the characteristics of every form of Meningitis, no satisfactory evidence or conclusion can be obtained from them. Persons who have been given to Alcoholic stimulants, and of the rheumatic diathesis, seem to be the most subject to this complication. A sudden exposure to cold, or rather to a combination of damp and cold, also predisposes to it. Our diagnosis of this affection would be very difficult indeed, if the metastasis from the joints were not noticed. As it
would be impossible otherwise to distinguish rheumatic meningitis from ordinary men-
ningitis, or rheumatic apoplexy from cerebral hemorrage. Delirium tremens
stimulates very often rheumatic delirium, but is not so grave, nor so rapid in its course.
It may also be mistaken for albuminuria; but the articular pains here would be a
sufficient diagnostic, as well as the
want of albumen in the urine—

With regard to our prognosis, the meningitis
form is often fatal, more especially, when
combined with Convulsions — the apoplectic
is invariably fatal — whilst rheumatic
insanity, although not necessarily fatal
to life, is almost always fatal to the
intellect — As regards the nature of
these cerebral affections, some hold them as
Caused by the Caudice Affection acting
upon the phrenic & sucromagastic nerves;
thus giving rise to the cerebral phenomena;
— others believe them to be due to arseniac,
Caused by the Obliteration of some of the
Arteries by embolism. — While again, some
believe others to be due to the same Cause.
and to be similar to the articular affection; as there exists a similarity of constitution, between the synovial membrane of the joints, and the serous membrane which envelops the brain.

Spinal rheumatism, or rheumatism along the course of the spinal marrow, is of precisely the same nature as the preceding. Its rheumatic character is shown by the same phenomena as all the other visceral metastases; viz. the shifting of the articular pains, or rather their disappearance on the approach of the symptoms we are now going to describe. A pain is felt along the course of the spine, sometimes in the lumbar region, sometimes in the dorsal, and accompanied by a hyperaesthesia of the skin; then we have convulsions, sometimes clonic, at other times tonic; followed by paralysis of either the limbs, or viscera; as the bladder; these symptoms disappear in the same order as that in which they appeared.

Our prognosis is in general favourable; it owes it proceeds to the phrenic nerve.
when it may cause death speedily by suffocation. We now come to
affections of the nerves themselves, and as holding the first rank with regard to
frequency, we must first consider rheumat-astmatic chorea. When considering one of
the forms of cerebral rheumatism, we see slight choreic movements as one of its
symptoms; but in that case it is only
slight, and fugacious, if merely rudimentary.
In other cases, it comes on as a distinct
complication, alternating with the Articular
pains; just as the other metastatic affections.
It generally comes on during an attack
of the Articular pains; generally towards
its termination, and continues for weeks,
or months, after the Articular pains have
entirely disappeared; so that it would
appear to a Careless observer, almost as
an independent disease. It generally
disappears spontaneously, but at the
same time, we often have a reappearance
of the Articular phenomena, which have
for the time been been suppressed.
In some cases we see the Choreic
attack, both preceded and succeeded by an
articulal attack;—in others the two affection
follow each other alternately. The connec-
tion between the two diseases is easily
enough observed, where they follow each other
so speedily—but their connection may
also be observed in persons attacked with
chorea, who have never had an attack of
acute rheumatism; but are of the rheum-
atic diathesis. In a family hereditarily
disposed to rheumatism, we often find
one individual subject to chorea alone,
another to rheumatism alone, and a
third to a Combination of both; thus
showing some latent bond of affinity
between the two. Moreover in the one
subject to chorea alone, although there
be no articulal affection, yet he would
be almost sure to find some visceral
complication as endocarditis or peri-
-carditis. Rheumatic chorea seems to
be more fatal than other forms, but
when not fatal, it does not last so
long, nor has the tendency to return
so often. This complication is always
found in subacute attacks of rheumatism, and nearly always coupled with some cardiac affection. No specific anatomical lesion has been noticed to account for it, some have noticed a hyperaemia of the membranes of the spinal cord, but this is also noticeable in other diseases. Infancy and puberty seem to be the periods of life most liable to its attacks. Females are attacked oftener than males, more especially when they are subject to hysteria, or some other nervous affection. Amongst the other nervous affections which have been described as having an affinity for rheumatism, we find hysteria, contraction of the extremities, tetanus, noticed during the retreat from Russia in the French army, from exposure to damp and cold. Besides the organic affections of the heart previously noticed, we find Stories of Dublin describing functional palpitation, as occurring with rheumatism. Few Indian diseases have also been described, as having connexion with it, called Beriberi, and Barbiers
the one a kind of dropsy, the other a paralytic affection, occurring in hot countries. The essential paralysis of children has also been attributed in some cases to rheumatism. We next come to its complications. As regards the digestive system, we often see, during the course of a rheumatic attack, the habitus constitution alternating with a more or less profuse dysenteric diarrhea, with the teneurism usual in ordinary cases, and as there is no other appreciable cause, it is more probably due to the metastasis of the rheumatism, than to a mere fortuitous circumstance. Most especially since we observe in those cases the invariable sign of the rheumatic influence viz. the recession and appearance of the dysenteric symptoms, alternating with those of the articular phenomena; the symptoms are precisely similar to those of pure Catarhal Enteritis, and it never has a fatal termination. A rheumatic peritonitis has also been described by Stoll, but this requires
additional evidence to prove it—The influence of rheumatism upon the liver and its functions, has been described by some but requires further proof. It has also been noticed by some, a peculiar affection of the bladder during a rheumatic attack, more especially at its termination. In this affection, we find the pubic region painful, and very sensitive to pressure, with frequent micturition, and a burning feeling along the whole course of the urethra, resulting in retention of urine, requiring the passing of the catheter. When no obstacle can be met with, the most probable explanation of which is that it is a rheumatic affection of the walls of the bladder. A French author has also described a rheumatic affection of the testicle. He states that, during an acute attack of rheumatism, the organ became the size of a hen's egg; which enlargement was found to be due to an inflammation within the tunica vaginalis; this disease appeared without any local application.
as soon as the general disease disappeared, we now come to the treat-
ment of acute articular rheumatism, and its complications, and on this point there is much variance; some believing in the alkaline method, some in blisters, others in quinine, and others in bloodletting either locally or generally. I of the method by bleeding: When blood is extracted from the system in large quantities, it increases in a great measure, the proportion of fibrin in the blood, which is already in excess in the blood of rheumatic patients, and thus increases the tendency to the deposit of fibrinous concretions on the valves; so that, when extracted in a large quantity, it does harm instead of good, but when taken in smaller quantities, more especially in severe cardiac complications, it is of considerable service, by tending to remove the local congestion, and for the same reason, is of much use in rheumatic pneumonia, pleurisy, &c. II Quinine, when given in large doses, tends to bring on some of the cerebral complications, and
Seems to be of more service when given in antipertussis doses about 15 grains in the 24 hours — if given in larger doses, it tends to cause vertigo, deafness, and weakness of vision; thus showing a toxic influence on the brain — Mercurials may be given at the onset in purgative doses, to favour the elimination of the materia mortis; it is best to give them in the form of Calomel, either with or without some adjunct, as Sulphate of Magnesia or Compound Salpeter Powder.

Opium has also been largely used in this disease, in doses proportionate to the amount and character of the pain. I grain every 2 or 3 hours, generally given in the form of Dover Powder. It acts also very well as an adjunct with Calomel, preventing the too energetic action of Calomel on the bowels.

The alkaline mode of treatment is the one most in vogue at the present day — the several Salts of Potash — Acetate, Nitrate and Bicarbonate are those most frequently in use, in doses of from
half a drachm to one drachm frequently during the 24 hours — but not more than an ounce should be given during that period — they act as diuretics and blood depurants — Colchicum, lemon juice, Aconite, and the Nitrate of Sulphurine are also of much benefit in certain cases — Locally, we use Liniments, turpentine, and Campharides, or other rubefacients over the affected joints — they are also of much use in Rheumatic Pneumonia, and Pericarditis, in causing absorption of the exuded lymph — warm baths are also much used, but there is a liability of the patient taking cold on coming out of the bath. The special complications require to be treated according to their symptoms — Affection of the brain without the violent and restless delirium would be best treated by opium; whereas when the delirium is violent, a large vesicatory on the nape of the neck would be found to be of more service — when delirium in any form is present, quinine should be prescribed. When prophylactic measures are required in persons of the rheumatic diathesis,
we should cause the patient to shun all
exposure to cold, to use warm baths frequently,
— to wear flannel, and to keep up the heat
of the skin by dry friction &c.
As regards regimen and diet, it should
be antiphlogistic; and change of air
should be recommended as soon as the
patient is convalescent. More especially,
to such a place as Bath, where the
atmosphere is dry and mild. And the
patient should at the same time be ordered
to regulate the several secretions, and
effluvions, for the promotion of recovery,
and the prevention of a future attack.

Having thus finished

Acute Articular Rheumatism, with its
Complications, we next come to Chronic
Articular Rheumatism, which may
either succeed the acute attack, or
Commence idioptically. When the
acute attack lapse into the chronic, we
find that the pain is greatly alleviated,
and that the febrile symptoms have
disappeared: the pain now assumes
more of an aching or gnawing char-
acter, and is more remittent than formerly, being now more than ever affected by changes in the weather; the parts remain stiff and weak, although there is neither redness nor swelling in the affected parts. The idiopathic form is of much the same character as the preceding, it generally attacks places which have been weakened previously by some accident, as contusions or fractures. When the circulation is accelerated by active exercise, we often find the pain disappearing in this form either partially or entirely. The limits of chronic rheumatism are much less precise than those of acute, as it comprises some very vague and badly defined forms of the disease. On a post-mortem examination, chronic articular rheumatism has no peculiar character—At one time, he finds an ulcerated state of the synovial membrane, which is sometimes of a reddish colour as if blood were extravasated under it—at other times it is detached from...
the surface of the bone; and further there is
great thickening and deformity of the
joints, especially those of the fingers and
toes. In this form of the disease, the
movements of the limbs are performed
with difficulty, in some cases they are
altogether impeded, especially in those cases
where the joints are deformed, or where there
are tophaceous deposits. In those cases
where the movements are only partially
impaired, we often hear a crackling
kind of noise, due to the rubbing
together of the opposite surfaces of the
joint, which are roughened and unequal.
The duration of this form is uncertain,
it may last only for months, or it
may last for the remainder of life.
If the pains be moderate, the Constitu-
tion is not in general affected,
the appetite remains good, and the
powers of digestion remain active; but
in some cases, when the patient is
confined to his chamber or bed, the
bodily powers become weakened. From
the want of exercise, the digestive
powers become impaired, and intercurrent diseases are induced, such as bedsores, caries of the bones, or hectic fever. The greater number of the sufferers from chronic articular rheumatism die from the debilitating influence of the intercurrent disease. There is also another variety of this disease, common amongst the poorer classes, who have been exposed for years to damp and cold. It commences in the joints of the fingers, sometimes without pain, but at other times with the most excruciating agony. It involves the muscles as well as the joints, and causes them to contract permanently, which tends to increase the deformity of the joints, which, in severe cases, are often dislocated. From the intensity of the disease—It is much more frequent in women than men. This form is incurable, and renders the remainder of life a source of misery to the sufferers, from the almost incessant pain, and inability to obtain assistance without the assistance of plan.
In the most common necessities of life, according to Bouillant, the most common visceral complication of chronic rheumatism is endocarditis, which may have remained latent since the acute attack, and then spring forth anew under the influence of the chronic attack; but it is also found in the idiopathic form, so that we are forced to believe that it arises also primitively, under the influence of chronic rheumatism. Some have supposed that the atheromatous alterations in the coats of the arteries in old people are due to rheumatism; but it is more probable that they are due to gout. Acute pulmonary affections, although not altogether wanting in this form, are very exceptional; but tubercular areas such as phthisis pulmonalis are of much more frequent occurrence here than in acute articular. It often shows itself in those persons who are confined to bed, and it has been shown at the hospital of Salpêtrière, in Paris, that the majority of such
Cases, die either from tuberculosis or albuminuria, so that it is very evident that no antagonism exists between rheumatism and phthisis pulmonalis.

Cerebral affections have been shown as complicating this disease, but they have more probably been connected with gout.

Spinal lesions have been noticed in this disease, but in some of the less intense forms, we have slight affections of the digestive system, such as dyspepsia, vomiting, and gastralgia; but no peculiarly specific affection has been noticed. By French authors, a granular affection of the kidney, as well as a chronic inflammation of the neck of the bladder, have been noticed, but they are more common in gout, and it is therefore very probable that the cases referred to had been associated with the gouty diathesis. The visceral complications seem to be still more exceptional in the last variety of chronic articular rheumatism, viz.

that affecting the small joints of old
people. From what we have described, it is evident that chronic rheumatism exercises a much less influence over the viscera than acute, although it is probably as distinct when present. We now come to its treatment. And here little can be said, as most cases will not be cured by any treatment, although they may be alleviated. Sacrifices as Cauterides, or the Moxa, and Lecces may be of some service. Mineral waters, are also found to be beneficial, such as those of Bichy and Bades. Electricity and Galvaniiser have also been used; but we find that one remedy will cure one case, and not another, whereas some other one will cure the last case and not the first. Internally, some have found much benefit from the Iodide of Potassium, or the Preparations of Diurene. Having thus described Articular Rheumatism, both acute and chronic, we must come to Muscular Rheumatism.
Muscular Rheumatism is an affection without any constitutional disturbance, characterized by a more or less intense pain, fixed, or moveable, affecting one or more muscles, and increased by the contraction of the fibres of these muscles, and diminished when they are perfectly at rest. Two opinions have been set forth: as to the precise seat of these pains; the one believing that it is confined to the fleshy part of the muscle; the other that it is limited to the tendinous and fibrous portions. Both theories have found supporters.

It was the opinion of Guerullier, a great French authority, that there were two sorts of muscular rheumatism; the one an inflammatory kind, which had its seat in the sero-cellular tissue of the muscles, which was found often infiltrated with pus; the other neuralgic, having its seat in the nervous filaments, which supply the muscles; but fact are opposed to these divisions. It's abrupt invasion and as speedy
cessation, its rapid transition from one place to another, the absence of swelling, heat, redness, and fever, are sufficient to set aside the theory that it is of an inflammatory nature; nor is it of a neuralgic character—the pain is not confined to one tract, as it would be if it were along the course of a nerve, it is spread over a much greater surface. Muscular Rheumatism is therefore a special disease, a disease sui generis, and perfectly unknown in its nature. When a muscle is affected with Rheumatism, it becomes the seat of a pain not always of the same character, sometimes lancinating, at other times dull and aching, increased by the contraction of the suffering muscle, with great difficulty of executing those movements, which it is the duty of that muscle to perform. Pressure sometimes calms the pains. At other times, it makes no difference. There is no dislocation, no tumefaction of the surrounding parts.
I can exist either alone or along with articular rheumatism; it has no invariable duration, it may be ephemeral, it may arise and cease in a few hours, or may exist for years, and become chronic, when it may cause permanent retraction of the affected muscles. It always terminates by resolution. On examining the body of a person who has died from some intercurrent disease in the course of an attack of muscular rheumatism, no anatomical lesion has been noticed. As far as the rheumatism is concerned, the muscles are all of the ordinary colour, size, and consistence. Some, as Pierré, have thought that it ended by suppuration, but it is more probable that they had made an error in their diagnosis, having mistaken a subaponeurotic inflammation for rheumatism. Others say that there is an atrophy of the muscles, certainly there is, but it is only in very chronic cases, when the patient has kept the recumbent position for a length of time, and on
that account given the muscle no exercise, thereby the muscular atrophy is merely
Consecutive upon, not due to the Rheumatic itself. In this case our prognosis is,
that there is not the least danger to life, but that it may prove very rebellious.
As regards Cure — All the muscles are liable to be attacked by it, but more
especially those of the trunk, and those
of the Members near the trunk as
the deltoid — It is very rare in
infancy, but becomes more frequent in
the adult and old man; — It is more
common in males than females, and
in the poorer classes, who are exposed
to variations of temperature more than
in the rich — Heredity and a life
peace proceeding an active laborious
one seem to predispose to it. This
is well seen in old soldiers, who, retiring
from the Service, have nothing to do,
they almost invariably suffer from it.

The great exciting Cause however is
Moist Cold. There are some partic-
ular varieties of this disease which
require special attention. — Firstly, the Occipito-frontal muscle is very often affected; it is characterized by great pain whenever the muscle contracts; it is general over the muscle, and is not limited to one tract, which distinguishes it from a Neuralgia in any of the nervous filaments; it is always caused by the direct application of cold. Next we have Torticollis or rheumatism in the fibres of the sternomastoid muscle, which is felt hard and contracted on the affected side, and the head is inclined to the side. It is frequently caused by having had the head in an inconvenient position during sleep; but more commonly by the direct application of cold. If allowed to face to the chronic state, it may bring on some alteration in the form of the bones. Neurodynia, or Rheumatism in the intercostal muscles, is more frequently found on the left side than the right. It is characterized by an acute pain in the affected part, increased by coughing, as well as by
inspiration, which is performed very in- 
completely. It is easily diagnosed from 
pleurisy, as we would have in pleurisy 
the usual auscultatory signs, as well 
as those elicited by percussion. Whereas 
in pleurodynia there is no result from 
such methods of examination, except 
that the respiration is more modified 
with the affected side as with the 
optposite one — Next we have 
Rheumatism in the preabdominal 
muscles, causing the most intense pain 
over the abdomen, so much so that the 
patient cannot bear the weight of the 
clothes; it is much increased on going 
to stool, or by any change of position. 
It is more common in females than 
males, more especially after confinement. 
It may be mistaken for peritonitis; 
but in peritonitis the pain is much 
increased by pressure, whereas it is 
only by contraction of the fibres of 
the affected muscles that the pain
is augmented in the rheumatic affection. Moreover there is the absence of any febrile symptoms in it, which distinguishes it from the febrile symptoms of pyritis. This also arises from the application of cold.

We now come to Limbacho so called from its affecting the muscles of the lumbar region, it affects usually both sides and is characterized by an acute pain, augmented by bending the back, as when attempting to take a heavy weight. It is one of the most obstinate forms of rheumatism, being very apt to return and pass into the chronic form. It may be mistaken for the prodromic pains of variola and nephritis. In variola, however, the pains are not augmented by movement of the trunk, besides the variola, cephalagia and fever occur conjointly with the pain, and are not to be found in Limbacho.

Again, in nephritis, we would have fever and the usual phenomena
Observeable by the urine, as well as its being mostly confined to one kidney. We now come to its visceral complications. In a great number of cases, from the observed alternation and simultaneity existing between articular and muscular rheumatism, we find in muscular joints the cardiac, pulmonary, and cerebral complications, which we have previously described as belonging more particularly to the articular variety. But again, an individual who has never had a rheumatic attack in the joints, may have a lumbago or other muscular rheumatic affection, and have simultaneously an organic cardiac murmur; but this simultaneity is more probably only coincidental, and not at all due to the rheumatic influence.

The more specific visceral complications of this variety of rheumatism, affect the mucous surfaces, and the nerves, and of course also the internal muscles which may, with all precision, be denominated visceral.
In example, a lumbago is often preceded, or followed, by an inflammatory affection of the mucous membrane of the bowels, called Catarhal enteritis — again, we often find a Rheumatism in the muscles alternating with a Neuralgia; a further from a long existing muscular Rheumatic affection, we often find the muscle atrophying, and becoming the seat of fatty degeneration, which causes a paralysis of that part. Rheumatic affections of the internal muscles are not easily diagnosed from the different pains which affect the neighbouring organs, owing to the difficulty of examining them; as they are hidden from all actual observation. This objection to their examination becomes, however, an advantage, when we look at it from another point of view; as it pre- -vents the direct application of cold, which is the chief exciting cause of the Rheumatic affections in the internal muscles.
We will now examine the miscellaneous complications in turn, and first of all.

Rheumatism of the uterus — This has been described some time ago by German authors. It is characterized by a pain limited to one portion of the uterus, which however does not remain, but spreads from one spot to another. It is observable in all conditions of the uterus; when it is empty, when the woman is pregnant, at the moment of delivery, and after the child is born. It is more painful when the uterus contains the child; in this condition also the pains shoot with greater force and frequency, at one time towards the bladder, when they cause painful and frequent micturition, at other times towards the umbilicus and bowels, causing tenesmus and diarrhoea, and also often down the thighs. These pains simulate the natural labour pains, in that they are subject to exacerbations, but they
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differ, in that they do not cause any dilatation of the neck of the uterus, they also further differ from the natural pains, in that they are most painful at the commencement of contraction, as they are due to the condition of the uterine muscle itself, and not to the dilatation of the Cervix uteri. — Again, the pain instead of commencing at the fundus of the uterus, and proceeding towards the neck, as it does in labour pains, commences at the affected part, and spreads irregularly, the rheumatic pain further hinders the contraction of the abdominal muscles, which is not the result of the natural pains. — Pressure over the hypogastrum as well as rectal or vaginal examination increases to some extent the rheumatic pain. It is apt to return at each pregnancy, and although not dangerous to the mother, is sometimes fatal to the foetus, through its great liability to bring on abortion — A rheumatismal gastralgia has also been noticed by some authors, they describe erratic
name which, after having proceeded over the whole body, fix themselves at last over the stomach; but it is probable that they are either due to hyperchloriuria or gruit; as gruit is much more liable to attack the stomach than rheumatism. Rheumatism in the muscles of the oesophagus has been described by French authors. In one case, the pains having proceeded over the whole body, at length fixed themselves in the muscles of the chest. When suddenly the patient felt a very painful feeling of constriction in the region of the oesophagus, so much so that deglutition was performed with difficulty; this pain, and the difficulty of swallowing disappeared with the rectoral pain after a few days. It seems to be excited by the passage of cold drinks over that region. We next come to cortical rheumatism, which has been observed by Chomel, and other French writers, and is perfectly admissible, when we take into consideration the exposure to cold to
which, from its situation, it must be subject — In the case described by Chomel, a pain was felt at the base of the tongue, and in the back of the throat, whenever the tongue was moved; this occurred during the course of a polyarthritic rheumatic attack, which materially strengthened the diagnosis — In the same way we have pharyngeal rheumatism: the pain is only noticeable when the muscles are in action, and more especially during the first mouthful — We now come to the most common and the most generally admitted rheumatic complication, affecting the internal muscles viz. Rheumatism of the diaphragm or diahragmatic, or diahragmodynesia. It generally commences and proceeds as follows — the patient is suddenly seized, after exposure to cold, with a severe constriction in the base of the chest, which impedes breathing: this is sometimes preceded by lumbago or pleurodynia. The pain is augmented by the movements of the body, and by
the action of inspiration, but is not in-
creased by pressure over the surface.
The respiratory action of the lower part
of the chest is altogether prevented, and
the abdomen remains immovable.
On auscultation, the only thing noticeable
is a slight decrease of the vesicular
murmur. It might be mistaken for
an incipient pericarditis, a diaphrag-
matic pleurisy, or an intercostal neur-
algia; but the seat of the pain lies
over the insertions of the diaphragm,
the negative auscultatory signs, the
absence of febrile symptoms, and the
immobility of the abdomen, are suf-
ficient to distinguish it from any
other affection. The treatment of
muscular rheumatism will now be-
ecessary for a short time.
In the acute stage diaphysium, dry
friction, and warm baths, will be
found of much service, especially when
it only affects the external muscles as
the deltoid—followed by some soothing
emolient such as the Linimentum
Chloroforms, or Trichina Opium, to calm and alleviate the pain. When it affects the uterine in its empty condition, such applications as the preceding would be of benefit; but during pregnancy, fluid and antispasmodics with warm baths would be of more service, and during labour he should cause them to inhale chloroform. In the diaphragmatic affection, sinapisms or wet cupping applied over the seat of pain would generally be certain to cause it to disappear. A current of electricity directed to the surface of the charnarded muscle has often been found sufficient to remove the pain. As regards prophylactic measures, persons of this diathesis should guard against minute cold, wear flannel, and wash themselves frequently with cold water, for the purpose of correcting the disposition they have to perspire freely on the least movement, preventing chills, as well as procuring more tenacity to the skin, and rendering it less sensitive to atmospheric changes; and
He who the beam forecasts, they
bring a beneficent bath into.

Many who forecast, many
complications of clearness, with their

Many who are benighted, convince the
scent, do.

Refract your currents, and the cerulean
heath, the thorny.

And the bearing of the thorny thorn, the
heath, the thorny.

And the bearing of the thorny thorn, the
heath, the thorny.

And the bearing of the thorny thorn, the
heath, the thorny.
probably they coexist, and if they could be impossible to determine which was the chief disease. — In the gouty we have all the symptoms of fatty degeneration, palpitation, syncope, rupture of the heart, and an intermittent pulse. The atheromatous condition of the arteries also belongs especially to the gouty diathesis. — In their attacks upon the respiratory organs, these two diseases act in a very different manner: gout is always complicated with an affection of the bronchi, whereas as we have previously seen, rheumatism attacks the parenchymata of the lung, and always acutely, showing the precision which characterizes rheumatic lesions. As opposed to the indeterminate character of the gouty visceral affection, rheumatism is very characteristic of gout, and as was previously shown is very exceptional in rheumatism. — Gout stands in the same relation to the stomach, that rheumatism does to the heart—the stomach is as
frequently affected in the gouty, as the heart is in the rheumatic — it is the chief seat of visceral gout. Rheumatism, as before mentioned, rarely affects the liver; but in the gouty, we often see chronic hepatic affections — the best known however of all the visceral complications of gout, is nephritis. It commences with a deposit of urate of soda in the uriniferous tubes of the kidney, which causes alterations in the parenchymatous tissue, followed by partial atrophy of the organ; but this condition is rare in rheumatism — gout is moreover characterized by the quantity of uric acid found in the blood, so much so that even the serous fluid caused by a necrotic process will be found full of crystals of urate of soda acid; whereas rheumatism would only give negative results to such a mode of procedure — gout, further, affects the rich exclusively, and is hereditary. Not being caused by the
application of cold as rheumatism is.

Such are the chief points of difference between these two diseases, but in many
instances, we will find that there is
a great difficulty in distinguishing them
that, in fact, in many points they
greatly resemble each other so much
so that they may truly be described as
two branches proceeding from one
parent trunk, and intermingling
their smaller branches with each
other; until it is indeed difficult

to decide to which branch they in
reality belong.