



THE UNIVERSITY *of* EDINBURGH

Thesis scanned from best copy available: may contain faint or blurred text, and/or cropped or missing pages.

Digitisation notes:

- P.2 missing in original

1857

2

Pathology and Treatment of
Gout-

By-

Henry Walker-

Pathology and Treatment of
Gout.

By

Henry Walker.

Few subjects perhaps in the annals
of Medicine, have so much magni-
fied the attention of Physicians as
the Pathology of Gout; and justly
so. for the Practice of Medicine
is based upon a thorough appre-
ciation of ~~science~~ the Pathology
of disease whatever that disease
may be; for without a proper
understanding of the lesion

probably never to return. Can we
 wonder then, that the attention
 of Physicians has been engaged
 to investigate not only this but
 every disease, and happily their
 efforts in many cases has been
 crowned with success the result
 being that a revolution as it were
 in Medicine has taken place,
 and the treatment of diseases in
 the present day holds a far more
 conspicuous place than what it
 did in years gone past.

By
 James

As regards the disease
 in question, altho various specula-
 tions and hypotheses have been
 brought forward, yet even
 the further advancement of

4
science of the present day, has
not yet clearly elucidated the
true cause upon which (in all
probabilities) this important
malady depends.

Let us then review in detail.
the various views which have
been brought forward respect-
ing the Etiology, Symptoma-
tology, Pathological Anatomy,
and the various results of this
disease.

First respecting the Etiology.
Of these causes hereditary con-
predisposition stands preminent
and of all the morbid tenden-
cies which have been handed
down from generation to

to function. But certainly
 holds a very conspicuous place.
 not that I mean to say that
 every child of feebly parents
 does inherit the disease, or
 the contrary. many escape.
 or do I mean to say that it
 cannot be acquired. for I believe
 that there are many who are
 not born with this predisposi-
 tion, but from indulgence in
 the pleasures of the table, and
 from leading a sedentary and
 inactive become the subjects
 of this disease.

With this predisposition -
 there are always to be found
 very important external causes.

such as Intercostal signs. which I
consider to be the so called diathesis
of the man. and which have
been so well explained by Dr
Laycock. that it would be
wishes on my part attempting
to improve upon them. I shall
therefore summarize them in
the words of that gentleman.

But in the first place let
me explain that the word
Diathesis ^{by} ~~is~~ ^{I mean} a hereditary pre-
disposition to disease and by
inclivity, an existing morbid
state.

First then regarding this diathesis
which has received the name of
the Sanguine Arthritic.

and it is characterized by the following peculiarities. I

Heart large. Blood vessels numerous. Blood corpuscles numerous. Skin over ocular bones highly vascular, giving a floridness to the complexion.

Skin fair, firm, seagiuous. perspirable. Eyes blue. Hair thick. not easily falling.

Teeth massive well enunciated regular, even. undecayed. Head symmetrical. Nasal bones well formed, as are the quillia or ossified fovea. Lower jaw massive. Lips symmetrical. Dign tall. Thorax broad at summit. ribs well formed.

abdomen full. Muscles firm. P
large & robust. Intuition active.
Digestion vigorous. Appetite
great for animal food and
alcoholic stimuli. Respiration
deep. circulation vigorous.

Appetite great for out door
amusement. Reproduction
power active. Generative abun-
dant. Mental powers vigorous,
and enduring. There then are
what we may expect to find in
the man who inherits this par-
ticular disposition. And the signs of
of the Cachexia are as follows.

Blood vessels largely develop-
ed over malar bones and vari-
cose. Blood darkly tinted

and skin. Skin oily, yellow.
 Hair thick and white. Fetta mass in
 discolored crust with furrow.
 Lips thick. Nose reddish. Hypo-
 trophic. Arus similar. Abdomen
 punctate. Lungs thick. Joints
 and nose. nodosities at the ends of
 the fingers. lobes of ears, of fascia
 of muscles, of tendons. Respiration
 humid. wheezing. Pulse intermittent.
 irregular. Stomach flatulent.
 Digestion acid. Urine loaded
 with Lithates. Temper irritable
 mind sometimes unsettled.

It has been supposed also
 that Intellectual superiority
 has a great deal to do with
 the development of this disease

10

but I think that the men who hold this doctrine have not sufficiently taken into consideration. That along with this superior gift of talent, we generally have it associated with prolonged and laborious study, and also that those persons are placed in such a position in the world, that all the demands which they may at any time demand, are promptly administered to them. In proof also against it I may mention that it frequently occurs among small Publicans, who are by no means, blessed with any extraordinary amount of talent

but on the contrary are generally II
very deficient. and in this class
of men we generally have it best
developed in those of who partake
largely in strong ale, and port.
with respect to this subject we:

Theritis differ. some supposing
that alcoholic stimuli. is the
most productive source of all
spirituous liquors. It has been
shown by Dr. William Budd.

that the men who are undergoing
great bodily exertion are much
more liable to acquire this
pre disposition, than those who are
taking a moderate quantity and
little exercise. The illustrative
case is as follows. a body of.

12
workmen which were employed
on the Flanes in peculiarly fa:
tiguing weather - and labouring
day and night in order that their
last night be as ^{soon as} possible com:
pleted - and in consideration of
this exposure, and fatigue they
had a large allowance of liquor,
each man drinking daily two, or
three gallons of portw, besides in
general a large quantity of spirit,
and among these men the disease
being particularly ripe. but in
this case we have no proof of the
exposure being ^{the} exciting cause
seeing that the allowance of
stimuli ^{was} being exceedingly great
and it probably a pleasing one

important part.

There are many other causes enumerated by authors, but they seem to be rather exciting causes. Such as long and continued walking with tight shoes. The application of cold to the feet. Indigestion. produced by eating fruits and vegetables, or from the sudden change of diet, and also from the sudden stoppage of some abnormal discharge as bleeding piles. Large quantities of animal food seem to be a very fertile source of this complaint, and we have already shown that those who are particularly predisposed, are very

sager for a liberal supply
of this kind of nourishment.

Such then are some of the
important causes, but we must
not forget, that a man both
pre disposed, and under the exci-
ting influences may for many
years escape an attack. While
another, perhaps not nearly
so exposed takes the complaint.

This resulting from peculiarity of
constitution. The stronger the consti-
tution the greater will be the powers
exerted by the system to overcome
this acrimony. or to throw it off.

by the usual excretories, and
vice versa. but all will in time,
as the system becomes more.

and more debilitated, and the
 digestive powers fail. become subject
 either to regular or irregular attacks.
 the regular form resulting from
 excess in diet, the digestive organs
 healthy. the irregular from the
 gradual decaying of all the
 powers of the system.

In the next place let us consi-
 der the Symptomatology of this
 disease. Generally we find it
 preceded by premortory symp-
 toms in many respects. Dyspepsia
 loss of appetite. Palpitation -
 nausea - flatulence - Pyrosis -
Heart burn - unusual coldness
 of the extremities - frequent
 eructs. Then after a few days.

15

The Patient suddenly wakes in
the middle of the night with
intense pain in his great-
toe, which is the result of In-
flammation and which in a
few days terminates either
by desquamation of the cuticle
or in effusions of an albuminous
character within the sheath
of the tendon, which may be-
come entirely absorbed or the
fluid part only leaving behind
the Lithate of Soda which forms
the so called gout stones. When
the Pathognomonic symptoms
arise, we generally have the
premonitory symptoms dis-
appearing, and the patient.

considering himself greatly
 relieved - Such then are the
 symptoms of a regular attack
 occurring in a strong robust
 man. but in time the attacks
 become more frequent, and
 are not more particularly con-
 fined to one part of the body.
 but commencing either in the
 hand, foot or ankle -

We may also have what is
 called retrocedent - producing
 a series of symptoms according
 to the part on which the disease
 becomes located - If the Stomach
 then we must expect to have
 Pain, vomiting, cramps in
 several parts of the body -

The bowels in some cases are
constipated, in others it is
accompanied by Diarrhoea.

Great debility of Spirits and
capill sinking. - Of the Thorax.
hurried respiration, palpitation
great anxiety, and a frightful
conviction of immediate death.

Of the head there we may expect
Vertigo, headache - which
if the disease continues leading
either to Apoplexy or Paralysis. ^{head} _{stomach}

These then are some of the
most important symptoms
which are attended by first night
present.

Under the third head we have to
consider upon what this Malady

does really depend, and serious.

That this is still an open question

I shall make it my duty to lay down some of the most important facts which have been published on this most interesting subject. In the records of our

writers, we find that even in

those days this subject had engaged their utmost attention for

we find that Galen ascribed the Phenomena of gout to the exuberance of fluids, and to morbid fluxion.

Paracelsus to a vitriolous acidity of the Synovia.

where?

Willis to a fermentation of

where?

fluids not easily miscible.

20

Hab. In a painful spasmodic
movement or agitation.

Hoffman. A mixture of excess
of saline principles in the fluids,
and he also maintained that acids
were formed, and that these
acids united with earthy parti-
cles.

Again in his Cullen maintain-
ing that it depends upon a
certain general conformation
and state of the frame, and that
this state of the system depends on
the condition of its moving power.
He also says that it is an affection
of the nervous system.

Latham. That it depends
upon irritation of the lymphatics.

by unassimilated and impu- 2
fect chyle. which in a short time
becomes followed by constriction.
The opinions of Wallis. Hamilton
and Kinglake are very much of
the same nature.

Berthollet. considered that it
was to the presence of Phosphoric
acid. and he says that Phospho-
vic acid is always in the urine in
excess with calcareous earths. but
naturally in much less quantity
in the urine of those persons subject
to gout. and that on an approach
of a purgative and during its
continuance the urine contains
as much of this acid as that
of persons of strong constitutions

and much more than belongs
to heat, in its ordinary state.

Berzelius has however proved
the error of the supposed exis-
tence of free Phosphoric acid
in the urine. he states that
by the laws of chemical affini-
ty. acids will unite with any
alkali that may be present
in the urine, and saturate them-
selves with it in the order of the
force of their respective affini-
ties. and it must follow that
when the quantity of alkali
is sufficient to saturate all
the acids present. the water
must be those that remain un-
combined, and thus will give

The urine its acid properties.

(23)

These Phosphorus must be the Lactic
and the uric.

Richardson observes that on the
approach of an attack of gout.
Though the Phosphoric ingredi-
ents of the urine are diminished,
yet they seem to be carried to
the joints there to produce ac-
tivate concretions.

Dr. Guilbert. states that under
the influence of certain causes
we have the function of digestion,
and perspiration impaired,
giving rise to a condition of
Phthoria, and thus matter
situated to be excreted is ac-
cumulated in the Lymphatics.

system. & being obstructed with
this matter, which becomes the
matter of Gout.

D^r Futten appears to believe
that a peculiar secretion in the
alimentary canal is the true cause,
and he thinks this is proved by
the fact that purgatives, are found
so beneficial in this disease.
but what is the nature of the
secretion he does not venture
to adduce.

D^r Parry considers it to depend
upon certain conditions of the
circulatory system, and offers it
as one of the complications
of a sedentary process.

D^r Thos. Gordonier. inquires.

That is depends upon some defect in the functions of the primæ viæ, owing to a morbid condition of the nerves of the Stomach and bowels, induced partly by want of due attention to a proper regulation of diet and exercise; thus producing some alteration in the secretion of gastric juice the result of which being an impairment in the proper digestive process.

Dr. Laysock. assigns the cause to a morbid matter, which is produced by an excess of Tripe in the blood.

Dr. Laysock says so!

Some men deny the existence of morbid matter, and attempt

to prove that the disease is essentially of a nervous character. doubtless in the course of this disease many nervous affections do spring up. produced perhaps by the putrid matter acting upon the brain and the nervous system. but seeing that in & o. many affections to which we ascribe the nervous system does become implicated. Physicians have restricted the word to these disorders, which (in certain persons from the great susceptibility of their system) ~~which~~ are produced by causes far less violent, than a which causes, acting upon a strong and sound constitution

27

would either have no such effect.
or at least in a very much less
degree. It still however may be
the cause in many cases of ir-
regular fits. as for example where
this state of the system prevails
in hysterical and hypochondriac
patients. There being no sufficient
material for the production of a
regular attack. but still the
nervous system is playing only
a secondary part. There being
some essential and important
cause acting through the blood
upon the nervous system.

Thus the I must mention
the generally received doctrine
of the present day viz that it

depends upon the production in the
 system of an excess of Lactic Acid.
 This view was first fully proved
 by the experiments of Dr. Ferri.
 he having detected large quantities
 of Lactic Acid in the blood of
 those affected with foot. and
 seeing that lactic acid is one of the
 forms into which the higher animal
 principles such as Fibrine, Al-
 bumen, Gelatine. tend to pass in
 their progress towards resolution.
 hence it is produced in excess
 where there is an excess
 or rather there is wanted for the
 separation of the tissues, or where
 the vital assimilating powers
 are appropriate for such a

X

X

purpose. and also on account
 of its resulting from the decay of
 the tissues after much exertion.
 Then from some cause the kidneys
 failing in their powers of elimina-
 tion. Lactic acid disappears from
 the urine, accumulates in the blood
 causing various forms of irregular
 fever, until at last from some
 circumstance it becomes fixed
 in some particular part of the
 body. causing what is called
 a regular fit.

But although this would
 seem to be a very feasible
 theory. I must state that there
 are other conditions of the system
 in which we have an excess of

anic acid - but no font. If this
then be the essence of the disease -
why should it not always lead
to this peculiar condition -

Such then are some of the
doctrines which have been brought
forward, with respect to this
most peculiar disorder, and
although they are only a very -
small number to what might
have been adduced - yet it is
sufficient for me to prove -
that one and all are capable
of being satisfactorily over-
turned - that they are mere
hypotheses, and that the true
lesion is as yet involved in
obscurity -

??

Ultimate Results.

(3)

When treating of the symptoms
we observed, that in many cases
the attacks were preceded by certain
premonitory symptoms. such as
giddiness. headache. palpitation.
of the heart &c. - These occurring fre-
quently are liable to cause organic
disease of that particular organ of
the body. which is the most affected
of the brain. Paralysis or Mania.
will result. If the heart. valvular
disease produced either by irregu-
lar action of that organ. or from
ossification of its valves. we
may also have Angina Pectoris
resulting from ossification of the
Coronary arteries. If the lungs.

Asthma or Bronchitis.

If the liver be shall have troublesome dyspeptic symptoms. A jaundice from exhalations, and even in some cases Ascites. He will also be liable to attacks of gravel, which may ultimately lead to stone in the bladder. also to collections of dead matter leading on to rotter placation, which is exceedingly common in the Urine. or there remaining free in the cavity of the joint, producing either Synovitis, or great impairment of motion.

Engorgement. Articular. Pleurisy. Inflammation. or other affections of the kidneys, are among the common results of this complaint.

Besides these changes the patients
 are liable to Inflammation from the
 application of cold, or from some
 unknown cause. acting upon the
 affected joint. This when attacking
 the Stomach leading to a Nausea
 to the eye. to troublesome Ophthalmia
 if to the brain causing Apoplexy,
 or Paralysis. With this long list
 of Malign results we should expect
 the disease would be exceedingly
 fatal, but such is found not to
 be the case. and with due care and
 management we can generally
 bring the disease per se to a
 favorable termination. When it
 was from fatal. death results
 either from the Inflammation.

proceeding to the brain. Stomach
 or some other internal organ, or
 the system becoming so debilitated
 that the patient falls into a
 state of general dropsy, and ex-
 pires from interuption of res-
 piration -

Treatment. When we have reason
 to believe from the peculiar charac-
 ter of our patient, and from the
 precursive symptoms which
 have been before considered that
 an attack is about to take place
 our duty ^{is then} to endeavor to palliate
 those symptoms, and so endeavor
 to ward off the attack, and
 seeing that the digestion system is
 generally in fault and con-

and so from excess of acid.

ant-acids combined with slight saline purgatives will be called for, and for this purpose some preparation of Magnesia seems extremely beneficial. If however a paroxysm has commenced, what are the remedies which we should then employ. on this subject authorities differ some recommending the disease to run its own course, and so exhaust itself. for by this means the system is endeavoring to carry off the offending matter, and that if we endeavor to stop this salutary process, we shall be endangering the patients life by subjecting

him to the fearful disease of
Infectious. This doctrine is cer-
tainly not without its value.

Those who advocate the opposite
practice, are also not yet satisfied
upon what is, the proper method
of managing such a case. This
resulting from the fact that we
do not as yet know the true cause
upon which this malady depends.
if we could only ascertain this,
we should then all be satisfied
as to the remedies which we
should employ. But this not
being the case, each employs
a plan of treatment suited to
his own peculiar theory.

Some strenuously advocate.

W.H.

Holding. Others as strenuously
Object to such a plan.

Some trust entirely to Preparatives.
Others to no remedies at all. &c.

Most are now agreed that the
attacks may be effectually chor:
lined by the use of some prepara:
tion of Colchicum. Then comes the
question Should this be pushed
so as to produce its Physiological
action. on this point authorities
again do not agree. Some main:
taining that no good effect will
be produced without this aced:
ting. Others that it is not only
unnecessary but absolutely in:
jurious. as regards the local treat:
ment little need be done. some however

I commend anodyne and naps
 rating to time - I should also caution
 that if the disease assumes ^{a nervous} ~~an~~ ~~acute~~
~~specific~~ character chalybeates will
 be found serviceable. If an intermittent
 form - some preparation of Quina -
 Should not abate to some inter-
 nal organ complicate the case and
 then cause inflammation, accompan-
 ing it a great amount of Inflammation:
 Vomiting bleeding will be required,
 but generally an opposite condition
 is manifested. viz a tendency to prostr-
 ation of the system - and if
 bleeding is deemed necessary this
 should be done with the greatest
 caution - If it passes to the stomach
 producing spasm of that organ

Opium will be necessary and if
 the disease advances a liberal ad-
 ministrations of Stimulants will be
 required. We should also endeavour
 to carry back the disease to the part
 originally affected. for this purpose
 Sincapissus. h. o. b. utt. &c.

The other forms of retrocedent
 font must be treated by the
 remedies appropriate to the
 cure of these disorders of the same
 organ.

Perhaps the most interesting
 part of this subject relates to a
 prevention of a recurrence of the
 procyon - and to guard against
 this we must urge our patient
 to discontinue his usual mode

of living - to take regular exer-
 cise - to observe strict temperance
 in eating and drinking - to keep
 his bowels regular - to pay particu-
 lar attention to clothing so as to
 prevent catching cold - and to
 refrain from laborious study -

If the man who is the subject
 of this complaint will observe
 these rules - we may assure
 him that the attacks will be
 few, and not very severe - and
 we may justly offer him the hopes
 of an other calamity should be:
 full him of a long and happy
 life - If on the other hand our
 patient will not so restrict
 himself - he must expect to

suffer from repeated paroxysms.
and are long to be carried to an
entirely gran ~~from~~ one or other
of the many various results which
I have mentioned.

This then is a short account
of what is known respecting
the Pathology and treatment
of the disease called Lent.

Henry Walker.