Thesis:

on Hypothalamus Goiter.
Iophtalemic Goitre:—

Having described a case of Iophtalemic Goitre which has occurred in my practice during the past 2 years, I propose to give the results of my inquiry into some of the theories of the causation of this remarkable disease.


Family history: Not very good. Father and mother and five brothers & sisters all alive; but father & three brothers greatly suffering from gouty ill health, but of a family with strong tendency to Phthisis. Her eldest brother is at present abroad on account of tuberculous lungs. The remainder are fairly healthy.

She had been nursing her third baby for about 12 months. During the last 2 or 3 months of this time she had suffered from occasional attacks of giddiness & faintness, and
nearly became brotherless upon returning. The reason decided to have the Child, which caused a good deal of suffering, from pain in the breast, succeeded a day or two in bed.

In May 1804, a few weeks after the marriage she felt somewhat better, but her friends began to notice some peculiarity in the eyes, though she herself was unable to say that anything was wrong with them.

Early in July 1804 she went to the seaside with her children. While there she took a few sea baths, in the hope that they would act as a tonic, to make her feel a little stronger, but they seem to have had a bad effect, so that the eye became more strange, looking to the friends, she thought she looked ill, and this appearance, together with great nervousness, restlessness, & peculiar tendency, thrist, & thirst, of temper, all combined to make them imagine that she was going out of her mind.
She began, too, to suffer from a feeling of heat and irritability in the eyes, which was much increased by the constant rubbing, which she was unable to restrain.

The July 28th, 1884 I saw her, and found that there was a good deal of Granules Ophthalmicus in both eyes, together with thickening of the lids, which felt quite hard to the touch. There was also hypertrophy, giving her a very peculiar restless appearance, and she was very nervous, seemed unable to settle down to any occupation.

The heart was in a very excited condition, pulses 130, and there was a systolic blowing murmur at base. She looked weak, rather anaemic, complained of weakness and fatigue.

Ordered her three drops containing Suffusate of zinc bicarbon for the eyes, and a teaspoonful of Syrup of Phosphates of Iron with Quinine and tannic acid three times a day.

I find now at this time recogniz...
Nature of the erudition, attributing the general symptoms to Accessoria.
The peculiar appearance of eyes, which were at first prominent, to the Syphylus.

Saith not see her again for ten days, and then I found that the granular ophtalmieus had improved considerably. Through the thickening in the eye remained, while the hypertrophus eye did not appear constantly, but in addition there was now decided prominence of the eye, balls, and intense staring expression. This appearance was much interfered by the appearance of the upper lid, which did not follow the movements of the eyeball. This was best marked as the patient came down stairs, the eyes looking downwards, while the lid remained wide open, or even appeared to be retracted, leaving a margin of white sclerotic between the upper and lower edge of the lid. This opened.

J. Smith
Patient was still, but must have been at times as much as a quarter of an inch.

The eyes were hypertonic, had always been so, better perhaps accounted for the slight dilatation of the pupil: the hypertonic did not appear to get worse, nor was the right affected in any other way. There were no abnormal ophthalmoscopic appearances.

The face presented an appearance of congestion, being puffy and swollen.

On examining the neck the Thyroid gland was now found to be enlarged, the right lobe being rather more prominent than the left; the swelling was soft, elastic to the touch and pulsed distinctly, and there was also a peculiar thrill in addition.

The large vessels in the neck were pulsating with violence, and appeared to be considerably increased in size. The heart was beating very strongly, and was rather irregular in action; the pulsus was about 120, but seemed
The heart rate was about 140 or 150 upon the least excitement. It was not really a weak pulse, but appeared so in contrast with the violence of the pulsation in the neck.

The heart did not appear to be increased in size, but there was a loud systolic murmur audible over the whole area, which was also audible up the carotid arteries.

There was no rise in temperature.

The whole surface was covered in a sweat, the hands being moist and trembling. The pressure in the hands was well developed, but did not appear to be extensively developed over the body. The kidneys were acting well: the urine was normal, no albumen or sugar, and there were no symptoms of tuberculous disease.

The menstruation was rather scanty, sometimes a few days late in appearing, and the menstrual periods were always marked by an increase in the severity of the symptoms.
both in the Eyes & the Thyroid Gland.

The appetite was fairly good, but
hot inauspicious, while the bowels continued
to move fairly well; his diarrhoea.

She slept badly, had occasional
profuse perspirations at night; there
were no paroxysms of coughing, but
it was observed that she frequently
slept with her hands clasped over
her head.

The ankles were usually edematous
at bedtime, but the swelling to a large
extent disappeared by the morning.

There were no symptoms of disease
in any of the Abdominal Organs.

She was ordered fifteen drops of
extract of Digitalis every day, &
this produced some slight effect in
retarding the pulse, but it was rather
difficult to estimate the usual rate,
as the mere fact of having the pulse
felt was sufficient to send it up
many beats a minute: There was
however, improvement in The
General Health.
In October, after consultation with Dr. *Tomson*, she was given 2 grains of acetate of lead three times a day, and this was continued for some six weeks with improvement of the symptoms generally. The medicine was then discontinued, owing to her great reluctance to take medicine of any kind, she went on steadily improving for the next two months.

The pulse was now seldom above 100, being more regular and steady, but any undue excitement still sent up it to much higher.

The gout was gradually getting smaller, but at the same time losing its violent pulsations becoming much harder & firmer.

The eyes were certainly less prominent, while the lid edges of the right only occasionally was to be seen, during an unusual excitement; indeed on excitement or exertion all the symptoms became more marked again.

The left eye got well nine days ago.
than the right, while on the other hand the right lobe of the Thyroid Gland continued being enlarged than the left.

In the middle of January 1896 she went to visit relations in South of Ireland, leaving her children and household cases behind, and during a month's visit there she improved very markedly, came back with both hyper Thyroid Gland much benefited. - The frequency was gone from the heart, the Pulse was rarely above 90, much stronger as well as more regular; and she had lost a good deal of the nervousness which had been uncomfortable, and was in addition much fatter.

As this change had been so much good, about a week after her return she went to Alps, arriving there about 1st March 1895; - While there she at first suffered from sea-legs for a short time, probably from change of food. There use of fruit : two

Jenius
In months she came home practically well.

The Goitre could now only be felt as a small hard swelling on the right side; the heart was quite quiet with good healthy action; it was only in the eyes that any trace of the former condition was to be noticed: they did not appear prominent, but there was still a slight fulness and thickening of the lids, and the peculiar staring expression, which nearly all sufferers have noticed in cases of recovery.

The general health had greatly improved, she had gained flesh, appeared much stronger.

Soon after her return she became pregnant, and had had no return of the disease. She was confined early in March, and is now nursing her fourth child of feeling fairly well.

During the winter months before her confinement she suffered from a kind of bronchial asthma, which was sometimes
Very troublesome at night; it soon went off again, but has returned since her confinement. It is present. It seems to point to an affection of the Pneumo-gastric nerve, which is interesting from the probability that the same nerve may have been implicated in the attack of Ophthalmic Gout.

Otherwise the patient remains in much the same condition as when she came here from Algiers: the heart is acting well, its regular, pulse 80, and there are no traces of former uncomfortable condition. Indeed, except the rather peculiar appearance still present in the eye, there is nothing remaining of the disease.

Whether it may return again under similar conditions remains to be seen, but we'll do our best to prevent such a possibility.
Ophthalmomic Goitre was first clearly described by Dr. Gowers of Dublin, who delivered a Clinical Lecture on the subject at the Leith Hospital in 1834.35. This Lecture was published in the London Medical and Surgical Journal vol vi. May 23. 1835 (Renekaw, Strand.) and afterwards included in his Clinical Lectures. (Clinical Medicine, vol II p. 220.)

It is hence frequently known as Gowers Disease. Frenchman's Iritis Nervus. Generally adhering to this name, while the Germans commonly call it Besredka's disease after an observer of that name who described cases of it in 1840.

It was recognized long before this by Dr. Pang, who saw a case in 1786, and this was published after his death among his other papers in 1825. (See I.e. p. 37. Bartholomew Reports vol. XVIII p. 32.)

Dr. Storrs of Dublin was one of the first writers who entered thoroughly into the disease in his valuable work on the Heart (Diætes of Heart Failure p. 978.)
The disease seems to occur chiefly in
women, between puberty and The
menopause, hence it has been supposed
to have some relation to abnormal
conditions of the uterine functions:
both Turner and Stokes however saw
it in women more than 60 years ago,
and it sometimes occurs in men, in
about the proportion of 1 man to 6 women.

The exciting causes appear to be
abnormal discharges, internal shocks,
great bodily exertion, in fact anything
which tends to lower the tone of the
nervous muscular systems. In any
case it was probably brought on by the
long continued nursing of a strong,
healthy baby, which seemed to have
greatly lowered the patient's health and
strength, but we often meet with cases
where nursing has been carried on too
long without to produce an effect
being produced: The patient herself
complained of having suffered for
some 2 or 3 months from headaches,
Sometimes from Giddiness, but the
Heart
Arant was not examined at that time. Hyperesthesia is mentioned by Greenshow (loc. cit. vol. II, p. 390) as frights and mental lunacy by others as Common Cause, in some cases the disease becoming well marked quite suddenly, as in the case mentioned by Trousseau (Clinical Medicine, neuropsychiatry Society, vol. III p. 579), in which a woman after being violently for some hours suddenly felt the eyes swell, the thyrogloid gland swell and throb. Violent palpitation of the heart; the disease really becoming marked in the course of a single night.

Brown's Report (Ed. loc. cit. 1871, p. 214) gives a case in which long continued, increasing to in any case may have had all effect in producing the disease; and among other causes mentioned are bleeding from piles or a nose, taken excessive sexual indulgence, but these also are more frequently without such alarming results being brought about.
The important features of the disease, according to Stocke (Diseases of Heart and Aorta, page 27), are:

I. Increased force and rapidity of the heart's action, without fever, and of long continuance.

II. Excited action of the Carotic and Thyroid arteries.

III. Enlargement of the Thyroid Gland, synchrony with the force of the heart.

IV. Enlargement of the Eyeballs without any disease of the orbits or Brain.

To these may be added other symptoms which are more or less constant, such as Anæmia, derangement of the functions of the liver, or loss of the organ, (such as jaundice, Chloëmè, Ameéthume &k.), Paresies, Dyspnoëa, with violent palpitations. Feelings of Fulness in the Head.

A peculiar Trance has been described by P. H. H. (Anæmia, de l'Americanis, July, 1831, p. 79) as existing over the whole body, but most reached in the upper extremities, and there is also often a peculiar state of the Temples, a great Capriciousness and Want
...want of grateful feeling, which Toussaint who had a large experience in these cases, states as an important symptom, which may occur some time before the disease shows itself. (Clinical Medicine, Vol. 1, pp. 530).

Respirations are sometimes found, while Mr. Chedell (St. George's Hospital Reports, Vol. 2) records a number of cases in which he found a constant rise in temperature, varying from 105.5 degrees, but I have not found that observers generally mention any increase. In my own case the results of frequent observations were negative.

In most cases the heat symptoms are the first to attract attention, thus patient complains of palpitation and breathlessness on exertion &c. In some cases, however, the condition of the throat attracts the attention of friends before the patient is aware of anything wrong. (Medical Journal, Vol. 1, p. 389) in which there were both esophagitis and goitre.
Jodine for some months before the Heart was affected; while B. Keen and theatre.

(Transactions of Clinical Society vol. 1, p. 9) had a case in which both the Proptosis and
Enlargement of the Thyroid were present but no heart symptoms or throbbing of the Carotids. In Baldwin's also a case in which there were no heart
symptoms. (British Medical Journal vol. 1, 1834, p. 112)

The action of the heart is very

rapid and simultaneous, about 120 to 130 beats a minute, but very easily excited.

The pulse ranged to 150 to even 200.

The valvular sounds are loud exaggerated, and there is usually a roaring, sphygmotic, murmure over the whole heart, often audible also over the Carotid arteries; the heart may be seen and felt to be beating violently against the chest wall.

It has been supposed from the

character of the Carotid's pulsation that

and of the Cardiac impulse, together with

an appearance of increased dulness,

that the Heart was Enlarged, rather
by dilatation or hypertrophy, or both; but
Dr. Wilkes (Grenn Hospital Reports 1876) says
that Kieth found dilatation of the
Heart in all his cases; J. Russell Bakerian
(Transactions of Clinical Society, vol. vi. p. 9) found
increase of cardiac bulges; while her
Patchett (Lancet vol. 7 1872, p. 827) in a case
of recovery noted that the cardiac bulges
which had increased 5 inches in diameter
was reduced to 3 inches.

Against these may be set the opinion
of F. C. C. Plancher (Clinical Medicine p. 647) who
says that in his experience, it was very
considerable it is rare to find either
dilatation or hypertrophy, though this
may occur as the result of other causes.

Dr. Plancher, however, that these
diseases sometimes in all probability be
temporary hypertrophy, similar to that
that occurs in pregnancy, but that there
is rarely permanent cardiac lesion. (p. 672)
He says, the heart may be that, the large
do not stop, as it is the result of a deformed
state, without hypertrophy, as in hydranaea (p. 686).
D. Beigel (Reynolds's System of Medicine Vol. IV, p.369) says that even in cases where the heart is undoubtedly affected and enlarged, a high degree of valvular insufficiency is rarely met with; while syphilitic suits and hicers are common not only in the usual places, but in the large arteries in the neck also.

A number of cases of post mortem at Guy's Hospital, mentioned by D. Beigel (Principles and Practice of Medicine, Beigel, Vol 2, p.21) were at least bear out these last mentioned opinions.

Great irregularity occurs in the heart's action, and sometimes there may be several more cardiac beats in a minute than can be detected at the wrist. In doubt is the first instance the palpitation is due to functional disturbance only, but in cases where the disease has been of long standing one would expect to find dilatation & probably also some hypertrophy of the heart.

As an illustration of the violence of the
The action of the heart in this disease, Graves mentions the case of a young lady (Clinical Medicine, London, 1886, p. 228) with exaggerated action of the heart, in whom the beating could be distinctly heard during a paroxysm while his ear was 4 feet distant from her chest wall.

It has been observed that the other symptoms depended upon persistently functional disturbance of the heart, (disease of the heart and acute page 297) but more lately another kind has been taken of this condition, and it is believed that the heart symptoms are part of a wide-spread disturbance of the whole vascular system, as seen in the Rheumatic H. L. (Clinical Notes, Medical Times & Gazette, vol 2. 1884, p. 324).

In cases of recovery or improvement the heart symptoms are usually the first to subside.

In consequence of this abnormal condition of the circulation, tactual tension, patients suffer from noises in head, dyspnoea etc. (Reynolds' system of medicine, vol v, p. 372)
The second important change noticed by Stokes is the excited action of the Cervical and Thyroid arteries. This mainly depends upon the condition of the heart, but there is more than this, for both the Cervical and Thyroid arteries increase very much in size, and the Thyroid may become tortuous also. The large veins in the neck also take part in this general enlargement; the right jugular being less than 1.2 inches in diameter in a case mentioned by Stokes. (Diseases of Heart and Throat, pp. 280).

In one of his cases Dr. Russell MacKenzie found the arteries much enlarged, the Cervical were elongated, and the walls thin, while the right Cervical artery was increased considerably in diameter. (Transactions of Clinical Society vol. 7, p. 9)

He also mentions a case of well marked decrease in which there were no pulsations or Thrustings in the neck.

In most cases the Exaggerated pulsation in the neck, especially of the vessels in the immediate neighbourhood of the Thyroid.
Thyroid gland attract most attention.
Indeed it is sometimes stated in the
reports of cases that the Radial Pulse
was small or weak: Graves himself
drew attention. (Clinical medicine, p. 220)

Yet remarkable disproportion he
found between the strength of the
beat of the radial and carotid arteries,
the former being weak, the latter robust.

Still, it seems justifiable that there is
usually some enlargement in the
arteries over the whole body, though it
is possible that in the case of a small
or defect, the Radial Pulse Enlargement
may easily escape attention. Stiles
mentions a case (Scaife’s Pract. Med., p. 289)
where the same condition was met with
in the abdominal aorta, and S. Russell
had a similar case; (ibid.; New York Med. J., 1871, 251)

F. Barbour (Brepis, 1862, N. Y. Med. J., 1875)
says that “marked as is the pulsation
in the neck, it is just here alone that the
Pulsation is visible, for it may be found
in all the large superficial vessels, and
in one case the pulsation in the belly.

was
was more troublesome than in the cervical region."

Dr. Monk suggested that the
vascula & excitement in the upper
part of the body, as the lower half,
hence the menstrual irregularities, &
be looked upon the return of the disease
as a sign that the health was dis-
proving. (Public Medical Journal Vol.44, pp.351)

The enlargement of the Thyroid Gland
is another most important and usually
well marked symptom, though it is not
 invariably present, Dr. Thomas had a
patient with no Goitre (British Medical Journal
Vol. 1853, page 323). And Pernicious Enlargement
the case of a lady, in whom not only was
there an Enlargement of the Glands, but the
swell was markedly this. (Clinical Medicine Vol.3 pp.356)

The Thyroid Gland is frequently very
vascular, the arteries & veins are well
developed: indeed Holden says it seems
to be composed of a living network of arteries and
veins. (Manual of的方向s, p.18). In the
Early stage of its enlargement in this disease, there is no doubt, I think, that the increase in size is mainly due to hyperemia of the gland, enlargement and engorgement of the vessels; the inferior arteries become elongated, tortuous, thickened in calibre. It frequently undergoes sudden changes. Depending upon emotional excitement, and the condition of the heart acting and Trouseau says [Clinical Medicine 4th ed. p. 565] that congestion may occur several times in a day concurrently with increase of the cardiac pulsations. Graves also observed that the gland swelled during paroxysms of palpitation, with no evidence of inflammation; the thought that its structure was slightly analogous to those tissues called erectile [Clinical 4th ed. p. 222] He also thought that the gland never became so great as to cause deformity, but, through this probably is true in many cases, sometimes the gland becomes so enlarged as to cause difficulty in swallowing, but may cause severe attacks.
attacks of dysphoria as to endanger the patient's life, I perhaps call for immediate
relief from Trebeshvic. In these cases, however, it is extremely probable that
the symptoms are not due to direct
pressure, but merely to irritation of the
Pneumogastric nerve.

That the swelling may cause considerable
deformity may be seen in the picture of
Blackie's patient at Guy's Hospital, published
in Reports of that Hospital. (Guy's Reports 1830, p. 22)

In some cases, collections of blood are
formed, and cysts containing fluid,
while in long-standing cases there is
also a considerable increase in the
firm tissue of the gland.

The consistency is usually soft and
elastic, and distinct pulsations and
vascular tremblings may be felt, other
wise (because of heart and aorta, page 228)
that the pulsations in the gland are
made up of (1) arterial pulsation simply,
(2) of brachial thrill on in the gland, and
(3) of a pulsating thrill in the gland, and
then in the neck, like an aëessfion—
Both
Both livers are as a rule unaffected, but in the majority of cases the Right lobe seems more enlarged than the left, as I found in my case, though there are several cases recorded in which the left lobe was more. (Grayson: Ed. Index Secundus, system of Ed. Vol. 1, p. 376)

Dr. Patchett had a case in which the enlargement was confined to the Right lobe, while at the same time both livers were equally prominent. (Lancet, Vol. 72, p. 387)

Dr. Burney has had a case in which the Right lobe only was affected for some six months, together with ptosis of the Left eye; when later the Left lobe became affected, there was simultaneous Eosinophilia in the Right eye. (Lancet, Vol. 177, p. 389)

The Enlargement of the gland has sometimes appeared before the Heart symptoms, but there is no case recorded in which the Eosinophilia was the first symptom to appear. (Grayson: system of Ed. Vol. 1, p. 376).

In cases of recovery or improvement it is observed that the gland gradually

...
loos its violent pulsations, and as it becomes smaller, it also becomes firmer and harder, much less elastic. It becomes sometimes to remain in a state of chronic enlargement, and then take a more solid state. Should the heart become a second time affected,

In such a patient I was able to observe the gradual decrease in the force of the pulsations in the Goitre, and then to see the swelling becoming smaller and harder, until it finally remains as a small hard swelling, but be seen easily, but to be felt only on the right side.

The Goitres usually generally appears after the Palpitation and Goitre have been observed, but if either of these symptoms insufficiently reached to attract the patient's attention, especially, the condition of the eyes may be noticed by the friends.

As a rule both eyes are affected, but more nearly equally to 1. I found in ing.

patient that the left eye was always

Zahra
rather the worse of the two, & sometimes one eye becomes affected some time before the other, as in Blyegg’s case (Lancet ibid. p. 383) where many years elapsed before the second eye became prominent; and in Dr. Keith’s case in the Aberdeen Infirmary, where the left eye had been affected four years before the right one, always kept more prominent.

The Fourth Cardinal Symptom according to Stokes, is, “Enlargement of the Eye-balls, without any desire of the orbit or brain.” (Science of Heart and Aorta, p. 278) He believed that the peculiar condition was due to actual enlargement of the eyeballs, from augmentation of the Vitreous and aqueous humour of the Eye; in other words, he thought there was desity of the globes of the Eyes: — He did not think the condition could depend upon increase of the cellular tissue, for the enlargement sometimes appeared to be greatest when the exsanguination was most marked in other parts of the body.

This pretty clearly proved, however, that
there is no actual enlargement of the eyes themselves; in a few cases they have been described as appearing larger than normal, but others as appearing atrophied, but as a rule the eyes themselves are wonderfully little affected.

The Cause of the Protrusion at first, I have no doubt, is hyperemia of the cellular and adipose tissue at the back of the eyeball, due probably to the silent action of the heart, assisted by a dilated condition of the arteries and veins; repeated congestion in this way, depending upon the habit of naturally increase the nutrition of the tissues in the orbit, for which consequently increase in quantity and produce permanent exophthalmus. (Trousseau: Clinical Medicine Vol II page 523)

Possibly this protrusion may be assisted by a condition of traces in the muscular muscular fibers which exist in the tissues behind the eye, but these are so slightly developed in man, though important in circumstances. Intractable Hydrocele. Pathology Pathology of Sympathetic tumors; page 40.
That they cannot have been effect in causacy protrusion in opposite to
the recti muscles, unless, indeed, as has
been suggested, the rectus muscles
themselves are degenerated. We should
also have to suppose persistent irritation
in sympathetic nerves to account for
this continued muscular action, and
this would soon pass into paralysis.
Brindley Jones thinks, too, that
if the Proptosis depended upon action
Contraction of any muscles it would
not remain during sleep; he thought
it was due to serous effusion behind the
eyes (see South. J. 1786. 441. 521.)

In this opinion, Dr. Reith, who actually
found it in his patient (see South. J. 1787. 522)
and some of the first writers on this
subject, joined.

Most cases of protrusion & exocorision,
made on patients who had this disease,
but who rarely died of it, tend to prove
that there is a deep accretion or increase
in the fat cellular tissue in the orbit.
Trousseau mentions the case of a woman.
At 60, in which the eyeballs were 7½
larger than in health, but were pushed
out of the orbits by the accumulations of the
ocular and adipose tissues which
heavily filled the sockets. (Thomson.
Clinical mediæcine; hæmatid. soc. Vol iv. page 539).

That the protrusion, in great measure
depends upon vascular turgescence
is evident from the fact that it varies
at certain times, as during menstruation
which I frequently noticed; and also
that it increases and decreases, often
very rapidly, with the variations in
the amount of palpitation.

The appearance produced by the
effectiveness is most peculiar and
startling, and the patients frequenty
imagine that vitality
is coming on, an impression which
is strengthened by the changes in
temper disposition, which are so
constant, and also by the
very distressing paresthesias which
sometimes occur.

A large share of the peculiarity is
in
The patient's appearance may be set down to the absence of mobility in the upper lid, which does not follow the movements of the eyeball as in health, especially in the downward movement of the globe, as is readily seen. A considerable margin of white is hence frequently seen between the cornea and the lower edge of the upper lid, sometimes as much as a quarter of an inch.

This symptom, known as "Graefe's sign," is supposed to depend upon disturbed innervation of the muscles in the upper lid, this receiving its supply from the cervical sympathetic, and this is perhaps one of the strongest proofs of the complication of the cervical sympathetic in this disease.

Graefe's sign is remarkably constant even in slight cases, and is looked upon as important from a diagnostic point of view; it may occur before the Erythema is well reached, and is said never to appear in cases of Erythema due to other causes.

Although
Although very constant, it is not always present. Schirnau, &c. (see: Tawes, Gazette, 1802, p. 190) had a case in which it was absent, though the other symptoms were well marked. 

(See Fitzgerald, Dublin Journal of Med. Science, 1803, p. 201) quoted a case of glaucoma in which though only one eye was affected with effusion, the other symptom was present in both eyes. Dr. James Russell gives 
(see: Tawes, Gazette, vol. 1844, p. 841) the case of a girl at 16 something like the preceding: 
the left eye only had effusion while the right had also the hot tips without any protrusion; in this case, however, the right eye had previously suffered, became affected again on the occurrence of the palpitation.

The sight is rarely affected, though the eyes appear to suffer much in any way. (Tawes, Gazette, vol. 2, p. 542) he mentioned ulceration of the cornea, though he had many cases, &c. but as in the foregoing paper (Edin. Medical Journal, vol. 14, part 1, 1813) he never noticed dysphagia, twinkling of the eyelids or of the balls, or any

 Conjunctivitis,
 Conjunctival, or corneal, affection; but such affections do not infrequently occur: in cases where the protrusion becomes so great that for a long time the lids do not meet over the eyeball, the eyes suffer from exposure, and from frequent attacks of inflammation, sometimes so bad that the cornea is rough. In a case described by Lachner (Diseases of the Eye, p. 243) both corneas suppurated and even then the lids were unable to close over the contracted and comparatively shrunken globes: Taiters described a case too. (Med. Times and Gazette, vol. 10, p. 39) in which inflammation occurred in the left eye, with loss of sight. Eventually the eye itself was removed.

The ophthalmoscope reveals little or nothing: in a few cases dilated veins have been observed in the fovea, and occasionally some changes in pigmentation.

Some observers have thought the pupils were dilated, but it seems
prominent, that this depends generally upon hypoesthesis, as in my patient, for McGrayne is said to have been dilatation in 200 cases (Eulerberg & Gutierrez: Sympathetic Lent, p. 72). Here the symptoms differ from those of ophthalmia artificially produced, where the pupil is always dilated.

Fitzgerald makes a point of another sign, noticed by Stellwag, which consists in abnormal brilliancy of the palpebral fissure, and of incompleteness and diminished frequency in the act of involuntarily winking (Dublin Journal of Medical Sciences Year: 1863 p. 201).

The ophthalmia is not historically present, Trousseau mentions a case in which it was absent (Lëhrehs, vol 2 p. 556) while sometimes it is so great that in one of Trousseau's cases, a young lady (page 569) one of the eyes became dislocated and slipped out of its socket and had to be replaced by pressure of the fingers: A somewhat similar case is given by Steele (Lancet 1867, p. 308).
A lady whose left eye had come out during an attack of longitudinal, and as it was not replaced for more than a day, the sight was completely lost.

In cases of recovery or improvement it is common for so much of the lothlorn to remain that there is left in the eye a peculiar expression which is difficult to describe, Stokes calls it an intensity of expression of S. Russell had a patient [bird: Times Reports, vol. 2, 36, p. 257] who recovered, but yet never quite regained the former expression of her face: and this is exactly the condition of my patient, strange to say she notices much amelioration, but there is not the same appearance as before her illness, and the difference is quite perceptible to her friends. Otherwise there is no trace of the illness to be observed, unless a very careful examination be made of the right lobe of the Thyroid Gland—
Other important, though less constant, symptoms are anaemia, albumenuria, fibrina, vomiting, Freuza, &c.

Most patients present copies of anaemia, frequently with oedema of the limbs, and retroceular pallor. More especially if the case has been one of long standing. Trouseau thinks the anaemia becomes more marked as the disease goes on, for oxygenation of the blood is imperfectly carried on in the systemic capillaries in persons whose pulses range from 120 to 160.

(Trouseau: Clinical Medicine. Vol 7, page 575)

St. Bégin (Contributions to Practical Medicine, p. 116) not only thought these patients anaemic, but went a step further, and believed that the condition was wholly due to anaemia; he had never seen a case in which the general physical signs of anaemia were not more or less completely developed, nor one in which the usual treatment, for anaemia not due to either a masked mitigation or complete removal of the symptoms
symptoms. On the other hand, many cases have been recorded which presented none of the usual signs of aneurism, (except perhaps the Heart Insufficiency) and notably a well marked case of this disease, who afterwards died, among Dr. Cheddie's patients. It says she was within the least anaemic; figurs on to describe 2 other cases also without anaemia. (St. George's Hospital Reports Vol 67 p. 247)

There is frequently great recession, often rapidly produced, though very often the appetite recovers good, at times even excessive. Dr. Russell had a case (Brit. Med. Jour. Vol 2/22 p. 251) who was reduced to a skeleton in 6 weeks, and still the diet not present the ordinary signs of anaemia;

Any patient look flesh for some months, gradually, not becoming greatly anaemic, but she was not markedly anaemic.

Some patients present symptoms of Chlorosis, Digitamin (Lancet Vol 2/197 p. 937) had one in whom there was a decided decrease
increase in the proportion of white blood corpuscles. While Smith has seen cases of Chlorosis in which the symptoms (Guy's Hospital Reports Vol. XV p. 22.) approached very closely to those of this disease, where the condition may be simply great want of tone in the scull.

Accommodata usually comes on in the course of the disease: If the fevers are not quite stopped, there are at any rate irregularities; and Trousseau thinks there is no hope of a cure, resulting until the hypostatic is re-established (Clinicat med. p. 550.)

Sometimes there appears to be some connection between the symptoms and the condition of the tertius into functioning. It has been observed that both the desquamation and the Goiter become worse during the intestinal flow, as frequently observed myself, though in my case the irregularities in the dyspepsia were but slight.
S. Headle (St George Hospital Reports Vol IX p. 804) says that the disease chiefly occurs in women during the period between puberty and the menopause, so it may have some connection with sexual functions, but as disease has been shown, merely a cessation of menstruation, and that usually after the disease is established.

Germania may be very troublesome, and it constitutes one of the chief causes of life unrest with us this winter. It is sometimes being persistent: Mr. Kowen (Lancet Vol 1877) recorded a case where the patient died from progressive diarrhoea and increasing exhaustion. The intestines presented peculiar Catarrhal Inflammation, the formation of Perforation, Peritonitis, and the presence of numerous ulcerated and infected patches. Some observers look upon the diarrhoea, perspiration, changes in appetite, and the like as important indications of the involvement of the sympathetic system (British Medical Gazette Vol 1877).
Fomiting has proved very intractable in some cases, as well as dangerous to life. (Stirrington quoted in his Case (British Thins' Gazette, Vol 7/281, 647)) Could find somatic gastric condition, described it to vascular cerebral disturbance.

Notably it is one of the indications of the affection of the Pneumogastric nerve.

Another vomiting for diarrhoea was present in any patient at any time, with the exception of a slight attack of diarrhoea on first arriving in Algeria.

Attention has been drawn recently by Prof. Beaird (Revue de neurologie, July/19/79) to a symptom not previously noticed, viz: A peculiar tremor, which is sometimes present over the whole body sometimes confined to the upper extremities; said to be more completely developed in slight or incomplete cases. I had observed this trembling in the hands before
I was aware it was a symptom of the disease; I described it merely to account for its occurrence, but upon finding it had been noticed in other cases, I examined it a little more carefully, and found it different from any trembling I had before seen; quite a distinct tremor, confined in my case to the hands, which were at the same time soft and clammy.

Sympoza is a very distressing and possibly a dangerous symptom: it has been described as occurring in paroxysms, which in a few instances have been so bad as to necessitate the performance of tracheotomy or laryngotomy. Dr. Shingleton Smith observed (Medical Times and Gazette, vol. 7, p. 254) that it was usually increased by any emotional disturbance which increased the capillary engorgement of the head and neck. At the first moment examination he could find no obstruction to the passage of the air, the Trachea being only
Only slightly compressed, and he supposed it depended upon vascular disturbance in medulla oblongata.

In most cases the urine has been described as normal, but occasionally sugar or albumen may be present. Thrill (Lancet 1873 p. 308) had a patient in whom ophthalmic goitre and diabetes occurred simul;

andaneous J. D. Russell (Medical Times & Gazette 1876 p. 251) one in which the urine was albuminious and there was ascites as well. The abdomen was tapped once, and the result was the disappearance of the albumen from the urine.

The heart and the liver are sometimes found diseased, but these may be looked upon as accidental coincidences.

Dewar burnt Boge (Scottish Medical Journal vol. 14 p. 210) classes the spleen with the thyroid gland, thus stating it enlarged; but I do not find that other observers have noticed changes in their post-mortem examinations.
But we must deal with heavy difficulties here.

It is endeavoured to get at the cause of goitre, and the state of the lesions constituting it. For patients have died of goitre. Although there have been a good many cases of Graves' disease in people who have had it, nothing occurs which conclusively proves to be the cause of the complaint.

Among the earlier writers on the subject, Stokes disagrees that the heart affection was the starting point, long-continued functional disturbances of the heart (S. Reeves, op. cit., 287).

This theory is at once dispelled by the fact that the heart affection is not always present, though remarkably constant in the cases detailed on page 17. Another argument is the fact that in organic disease of the heart, a most functional disturbance of the heart, where these pulsations may be quite as powerful or even stronger, no such effect is produced.

A similar argument disposes of
The idea, formerly suggested by some, that the gout is the cause of the other symptoms, by pressure on the sympathetic ganglia: In the first place the disease may exist without gout, & in the second the much larger number of urinie gouties have no such effect.

*Regnier* / Contrib. to Practical Medicine, p. 116.

Considered the disease due to acutemia. Recorded numerous cases to support her view, but it is clearly recognised how that acutemia is by no means a constant or necessary condition.


He never desired anything to indicate a lesion of the autonomic centres, cerebral or spinal, and thought that an impoverished state of the Blood, acting on the vaso-motor nerves of the sympathetic would account for the chief described symptoms of the disease.


Believed that ischaemicic gout is a neuritis of the sympathetic.
a complaint attended by a material lesion of the ganglionic nervous system. This lesion gives rise to local congestions, the proximate cause of which is a modification of the vascular apparatus. He found after death, in some of his cases, changes in the sympathetic, chiefly, the inferior cervical ganglia. The changes consisted of predominance of connective tissue and exclusion of proper nerves elements. He assumed therefore that the disease might be due to temporary congestion of the sympathetic nerve, or to permanent structural alterations in the ganglionic nervous system.

Sulenberg & Glissman (Physiology and Pathology of Sympathetic, Trans. John's, p. 195) record two cases in which changes were found in the cervical ganglia, especially, the inferior ganglia: increase of cellular, fatty tissue, atrophy of nerve elements. Also found by Goodhart (Transactions of Pathological Society, 1853) by Singleton Smith, (Ed.: Their Researches, p. 542)
and by Keith (Jard. Trans. & R. Geolog. Soc. 38 p. 521) but against these Eulenburg reports four other cases, beacuse by competent observers, in which no change whatever could be found in the sympathetic. In both cases were carefully examined by Proctor (Cuad. Hospital Reports Vol X p. 22) with negative results. In Chedde in a case, carefully prepared. I have mentioned the sympathetic cords & ganglia, & could not have found them more typically normal. (St. George's Hospital Reports Vol 11 p. 798).

F. Gibbon (Lancet 80 p. 94, Nov 93) says that three diseases of the sympathetic organic or functional, is almost certainly present: the nervous vasomotor power is in abeyance, or is modified, and the walls of the blood vessels readily yield: sufficient disease may be present to modify the vasomotor function, and yet not be detected by our present knowledge because of observation.

Eulenburg & Guthrie (Physiol. Rev. of sympathetic p. 89) think this disease...
might be explained by assuming an irritation of the vaso-motor fibres, and paralysis of the vasodilatation fibres of the cervical sympathetic. These two divisions have different centres, and we might conceive one to be in a state of irritation, while the other is in a state of paralysis.

They also thought that the increased action of the heart may be due to a paralysis of the cardiac fibres of the sympathetic leading to increased flow of blood by dilatation of coronary arteries and consequent stimulation of the cardiac ganglia.

Fitzgerald (Public Journal of Medical Science, p. 296) who has devoted much time to this subject says

I. Ectophtalmic Goiter may be produced by paralysis of certain nerve regions which are controlled by the medulla oblongata; the points traversed in concern by the nerve paths are the Restiform bodies.

II. Under such circumstances, the
Lephtalmism and the Gotic depend upon alteration of Bloodvessels.

III. The increased rapidity of the Heart is brought about by diminution or abolition of Tone in the Vagus.

The occasional occurrence of sugary urine points to a lesion in the medulla oblongata; such can be produced experimentally by irritating certain parts of the medulla.

Rattler, quoted by Fitzgerald, Public Journal of Medical Science April, 1868, p. 204. -

Lesions of those circumscribed portions of the Medulla Oblongata, which preside over the Vasomotor Centers of the Thyroid Gland, and of the extraorbital tissues; and he differs from the very great frequency with which the Lephtalmism and the Gotic are found associated, that the parts in question must be situated close together, (grey matter on each side of the medulla oblongata floor of the 4th ventricle). He ascribes the cardiac symptoms to lesion of the cardiac inhibiting Center for the Vagus.
In the case of a woman whose disease was well marked, by Headle (St. George's Hospital Reports, vol. vii., page 84), found the sympathetic to cervical region false to the phrenic ganglia, the cervical nerve quite healthy, but in the medulla oblongata the vessels were uniformly dilated to a remarkable degree, but there was no oedema or debris of degenerated nerve tissue; this occurred throughout the whole of the cervical region of the cord down to the cervical region. In other cases, no other abnormal change could be found in the medulla or spinal cord.

In one of these cases, (Proceedings of Clinical Society, vol. 7, page 9) to Mr. Lockhart-Clark, the nervous system, and found the corpora quadrigemina, and the medulla oblongata, particularly at its posterior part, very soft, and these parts on intruding examination, here found to present the usual appearance of chronic softening. The medullary effusion and tissue were tinged with blood.

These two cases are important, because in...
in these actual changes have been observed in the medulla itself: and
Chedda thinks that disease or functional disorder of certain centres in the cervical
region of the Spinal cord (St. George's Hospital Report Vol. 18 p. 86.) and medulla oblongata
would explain with much completeness the most constant and leading symptoms.
In this region lie these centres the disturbance of processes of these
special functions appears to give rise to the most remarkable symptoms
which distinguish these affections.

The stiffnessness, the Gait and
the increase in temperature might be
supposed to be due to the action of the
heart, vascular dilatation and pulsation.
The vascular pulsations may in part
be due to increased force of the heart's
action, the fast flow of toxicity.
The general base in this centre may be
impaired, to cut off from influencing
the vascular centre of the whole body.
The condition is probably one of
disorders rather than organic change.
Fitzgerald draws attention (Public Journal of Medical Science vol 1 p. 205) to the probability that it is the Right Vagus which is chiefly concerned in inhibiting the Heart; and he thinks that if the Heart is not affected, the general symptoms are worse on the left side, whereas he thinks that where the Heart is affected, as it is in the very large majority of cases, these symptoms usually are more marked on the right side. The case mentioned by Dr. Russell (see Transactions of the Royal Society of Edinburgh vol 1784 p. 781) goes to support this view, as this case as long as the symptoms affected the left side only, the Heart was not affected, but the right side because affected and the Heart troubles occurred simultaneously.

Prof. Laycock (Edin. Medical Journal vol 1 p. 21) thought the general conclusion he has set forth as admitted that there is a cerebrospinal nuclei center for the heart, and that its actions are connected with the sympathetic ganglia in the cervical, dorsal region; the connection of the
heart with the oculo-spasmodic affection may be assumed, either the violent palpitations which accompany the ophthalmoplegia and vascular meningitis are seen to be part of the same cerebral-spinal lesion.

He thought that the ophthalmoplegia was due to a motor neuron of the oculo-spasmodic region of the spinal cord, being that portion which extends from the 1st cervical to the 2nd thoracic vertebra.

The resemblance of the symptoms of this disease, and those produced experimentally by division of the cervical sympathetic in the neck gave rise to the idea that the disease depended upon disturbance of the cervical sympathetic, and that theory was much strengthened by the fact that in a considerable number of the cases recorded actual changes have been found in the ganglia. But, it is not possible to give credit to the cervical sympathetic with all the symptoms, such as the Hemianopsia, hemihypesthesia, tremors, etc., which are to be attributed to disturbed vasomotor irradiation.
Reenervation (head: Flourens, Gazette Biol. 3, 1847, p. 24.)

They point clearly to one of two things, either a general disorder of the sympathetic throughout the body, or to some central lesion influencing the vas motor centre in the medulla oblongata.

After a careful consideration of the various theories which have from time to time been advanced to account for the symptoms of this cardiac disease, I am obliged to come to the conclusion that it is a functional disorder of certain centres in the medulla oblongata, those centres chiefly which control the sympathetic and plexus sympathetic nerves:—the plexus sympathetic here is admitted to be the inhibitory nerve of the heart, hence any disorder tending to impair its action would sufficiently account for the disturbance of the action of the heart. To account for the dilatation of the blood vessels, we must suppose the centre which presides over the vas motor nerves to be affected.
Which allowing an easy dilatation of the vessels, will be sufficient, with the indirect action of the heart, to account satisfactorily for the Eosplathalum and the Gicht. Haberlon says (piece of the Pneumo gastric nerve, p. 28) that there is the closest sympathy between the Pneumogastric nerve and the sympathetic system, hence we find symptoms common to both. - How we find in Eosplathalum Gicht, where impaired nutrition, with enlargement of the Thyroid gland, protrusion of the Eyeballs, irritable condition of the Heart, it is in some cases a mechanical condition of habit. 

The intimate relation, then, between the pneumogastric nerve and the sympathetic system may account for some of the more general symptoms such as the Vomiting, diarrhoea etc. For Gicht eye signs is probably clearly due to disturbance of the sympathetic. 

Haberlon also says that the
intimate union of the Pneumogastric with Branches of the Spinal cord of the sympathetic nerve give rise to symptoms as if the Branches of the Pneumogastric were themselves vitiated. The heart has an extensive distribution. By its influence, the brain, lungs, stomach, liver, and other abdominal organs are brought into the closest union. During health the hidden connections are united in harmonious working, disease, the partially of the disturbed action spreads its sympathies to all parts thus linked together. (Page 21.)

Disturbance of the Cerebral Centre of the Pneumogastric may be produced by over anxiety, fluctuating feelings.

After this functional disorder has existed for a time no doubt changes in structure take place, which may account for some of the appearances found in the sympathetic system to even in the fundus which may then be looked upon as the effects of the disease rather than the cause.
but knows that disorders of function may exist without any change being found in the nervous regions which control that function; this being so, that happens in Endemic Goitre, where in many cases skilled observers have failed to detect any histological change. Those disturbances which take place in the action of the Sympathetic is wonderfully constant, and in itself is a proof that the original disease is further back than the Sympathetic itself. That is, the centre which controls the whole system must be affected, and not merely the cervical or any other portion of the system. Inflammation of the Sympathetic or any which affects it would be expected to produce, in every case, the same arrangement of function, that we see appearing in case after case of this disease, another proof that there must be some central functional cause for all the symptoms of the disturbance of the Sympathetic.
The Prognosis is generally favourable.

Cheadle says that there seems to be a general tendency to slow gradual recovery, extending over a period of from 1 to 3 or 4 years, but usually complete in the end. ([C. E. D. F. Report, Vol. IX, p. 694])

Probably, however, it is true that the recovery is quite complete, still often there is something left about the eyes, perhaps only apparent to intimate friends, close observers. Stokes had an opportunity of watching the gradual decline of the symptoms in a case of long standing: — the least improved first, then the eyes became less prominent, though they still retained a certain intensity of expression: the thyroid gland became solid and lost its peculiar pulsation & tenderness; the goiter or to say that he died but knew a complete cure. ([Stokes: Head & Eye, p. 238])

In Patchett's account a patient who left hospital after 14 weeks quite cured. The eyes, the thyroid, the heart being quite normal. While the cardiac dulness...
had decreased from 5 inches in diameter to 3 inches.

In both our patients the recovery is pretty well established, but there is still a peculiarity about the Cynus which is quite apparent to her intimate friends and to myself. Whether this will eventually disappear remains to be seen. It is now about 12 months since the chief symptoms have gone.

Trousseau (Clinical Medicine July 1857) attributes the prognosis in unfavourable cases complicated with anaemia, until that trouble is cured.

Stillik also that in many cases the prognosis would be unfavourable, unless these patients are in a position to be removed from any irritating surroundings, for these materially retard recovery, by keeping up a constant state of mental or bodily.

The
The treatment of cataractous cataract is still unsatisfactory. Truncus albi
frequent to bleeding, bijanthe, Hp dejahothy.

The bleeding is advised for hypoplasia,
of the patient: secured in danger of
heart choked; Hp dejahothy be thought
useful in patients suffering from
anemia or heart; white for internal treatment.
The bleeding in bijanthe; Hp dejahothy
he did not think good, the formula as
beings bad for the already too rapid
pulse, while the latter is to depressing
thought to make it produce deahy
dual reality in those cases.

Some more recent observers, however,
have thought that Hp dejahothy, though
generally condemned in the text books.

Dr. Theodore Williams (recent vol. 5/32 p. 289).

gave 15 to 40 decimols of hydrochloric
acid with benefit to the eye and cardiac
symptoms; while Dr. Greenhow found
a great benefit from iodide of potassium
given at the same time as Hp dejahothy.

In nearly of the recorded cases already
abroad seem to have been capable of producin,
much effect, even digitalis failing
in uses. (Auwre says he always
found benefit from digitalis (breases
of digitalis given Expi. 351) In cases of
violent dyspnea we should apply it
continuously to the neck, say 8 minims
of lauict of digitalis every hour till the
juvenile fails.

Professor Laycock found that of the
treatment for anaemia did harm.
Sometimess there was little to be treated,
the had found the most benefit from
Belladonna. (See Tizze, Therapeut. VIII/4-1: 322)
In a medical report REGIS found a larger
Belladonna plaster. The blasts used
useful, to wind internally. It was least
beneficial to the eyes, but with the
heart and vessels.

Reiger also (Hand book of Therapeutics, 3: 579, 1876)
found that minims of Tinctures of
Belladonna every hour afforded great
relief to the superficial scions.

H. Brandfield Jones used beeches with
great temporary benefit, he also found
beeches of silver nitrate in the organic acid
alkaline.
useful in irritable stomach, afterwards he gave Taceenin, quinine & quininid. He once tried an injection into the tension of 10 minims of perchloride of iron, with most alarming results, the patient going into an attack of cardiac crisis (1862). 

Dr. P. Bank treated a case by hypodermic injection of morphine (Practitioner, vol. 1, 1883) with great benefit; he believed it to act by increasing the inhibitory power of the pneumogastric nerve. Large doses may be needed; but the effects of morphine on excited cardiac action, whether reflex or mechanical origin, are very marked.

Probably the best results have been obtained from electricity. Dr. Rockell gives an account (J. med. Res. & Brit. Med. J. vol. 6, 1880) of 9 cases thus treated; 4 were complete recovery, 2 nearly so, only 3 did not improve. 

Professor (as Dr. Land 84) that the galvanic current reduced the pulse from 115 to 70 six per minute, and failed to do more, then general paralysia reduced
Reduced it to a length 12 feet. Here, it
apparently this improvement was
permanent. There was also great
improvement in the general health.

A most important item in the
Treatment is the removal of the
patient from any irritation at home,
to
render him away for complete rest
and change.

Russell found the disease began
to improve as soon as the patient was
shut up away from others in 2 rooms.
In state of the greatest exhaustion,
in a few months, under God alone all
of the clinic, the because abnormally
fat, a condition which lasted for a year.

Sheehy (McKee, Report, Vol 12, p. 805)
also states the most important condition
is, the preservation of complete physical
and mental rest. Estherig, he says,
could be more benefited than the evil
effect invariably produced by excitement
and exertion; it being more remarkable
than the good effect of rest, and
mental
Hematology, in two of the last severe cases, in which it was
employed. Drugs are of little value, but probably the best combination
is of nitric oxide, & salicylic.

Principal references:
Grae's Clinical Surgery 1885. (Kewledge Inc.)
Grae, M.D. 1879.

Stokes' Diseases of Heart and Aorta.
Reynolds's Diseases of the Heart. Vol. 5.

Jaggar's Principles & Practice of Medicine. Vol. 7. (1886)
Cullen & Culman: Physiol. Pathol. sympathetic.

Ogle's Diseases & Injuries of the Eye. Lawson. 2nd Ed.
Begg's Antitoxins & Practical Medicine.
Nabothi's Diseases of Pathogenic Stages.

St. Bart's Reports. Vol. 76.

Guy's Hospital Reports. Vol. 16.

An account of Pathological Society. 1874.
The Transactions Vol. 7. 1880.
Archives de Neurologie July 1883.
New York Medical Record June 1884 June 1885
British Medical Journal Vol. 4/82 Vol. 5/83 Vol. 6/84
Public Journal of Medical Science Vol. 5/82 June 1883
Edinburgh Medical Journal Vol. 7/84 Vol. 8/85
Medical Times & Gazette Vol. 7/64 Vol. 7/65
Vol. 7/64 Vol. 7/65 Vol. 7/64 Vol. 7/65