THESIS
on
Scarlatina.

by
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Newcastle, on June, 1856.

S. C. Thorns concerned for 3rd or 4th July
Part 2. D. C. at this week.
On Scarlatina

Introduction. The disease which forms the subject of the following thesis, is one familiarly known in this and many other countries. It frequently attracts peculiar notice from its appearance in an epidemic form in different localities, and occasionally with such severity as to prove fatal in the great majority of cases. But although, from its frequency and severity, it has come under the cognizance of almost every Practitioner, there are still various points connected with this disease which call for careful and minute investigations. Our object, accordingly, in the present thesis, is to select those points in connection with Scarlatina, which may exhibit the subject in its clearest light and in its greatest variety of aspects as the present state of Medical knowledge on the subject will allow.
Scarlatina has been uniformly ranked in the order of Ganthematous diseases or Eruptive fevers, such fevers being usually characterised by a marked cutaneous efflorescence or eruption. The common name for the disease, Scarlatina, has probably been derived from the circumstance that the eruption, which generally accompanies this fever, is of a scarlet colour. It has received, however, a variety of names from different writers. The old and perhaps original term applied to the disease is that of Rosalia, which Dr. Mason Good has revived in his nosology. Dr. Martin classes Scarlatina along with measles under the common generic name of Morbilli Conglutentes; while by Hoffmann it is termed Rubra Rosalia and by Herderen, Gebir Rubra. This, as well as some other of the eruptive fevers, appears to have come from the East and to be of the great antiquity. It has been supposed by some writers that Scarlatina was known to the
Greek Physicians; but on this point
there rests considerable doubt. There
is more probability that the Arabian
or Paracenic Physicians were not un-
acquainted with it. No account, however,
of the appearance of the disease in
an epidemic form, is to be found
earlier than the middle of the
16th century, when it is said to have
broke out with considerable violence
at Naples. And yet, in the account
given of the Neapolitan epidemic,
there is an entire omission of all
reference to that dangerous affection
of the throat which has almost
uniformly been a symptom of the
disease in its true epidemic form.
Besides, the mention of the desquamation
of the cuticle in small scales instead
of large patches, and the eyes being
at the same time severely affected,
seems to point to Measles as the
disease described rather than
Scarlet Fever.
The first undoubted epidemics of scarlatina is said to have made its appearance at Breslaw in 1627; on that occasion the disease assumed a mild aspect and was fatal only in a few instances. It broke out throughout various parts of Germany in the course of the next 150 years. During that period, it was also known in Holland under the vulgar name of redd tent or red ague.

There is no mention of the disease in France until the commencement of last century. In 1717 scarlatina prevailed at Berlin along with a fearful epidemic of Small Pox. March, a German writer, describes no fewer than seven different epidemics all having occurred in Germany from 1720 to 1730; all of them however of a mild character with a mortality of only 10 per cent. At the same period, the disease appears to have raged extensively in Scotland.

It is a curious fact, that previous to
The middle of the last century, writers on the subject of Scarletina, described the eruption as not having come out before the third or fourth day; and at this period also, authors first introduced the distinction between mild and malignant Scarletina.

After this date, in all the accounts of epidemics, we find mention made of extensive and dangerous swelling of the throat, accompanied by gangrenous ulcers of the tonsils and palate.

From the end of the last century to 1830, the disease was very prevalent both in England and the Continent; but it would appear to have exhibited, during that period, more of an inflammatory character than it has done ever since; accordingly Medical men indulged freely in the use of the Lances, a mode of treatment which is comparatively seldom adopted in the present day.

The fact is, that for the last twenty
Years Scarletina has assumed more of an average than a sthenic character; there being in the great majority of cases a peculiar disposition to debility and to rapid nervous exhaustion. Dr. Chapman informs us, that in America, during the first thirty years of the century, Scarletina assumed a remarkably mild form, but that since the latter period it has undergone a great change, being decidedly more malignant and exhibiting a striking tendency to fatal collapse.

Scarletina may be defined as a contagious febrile disease, almost always attended by a cutaneous excretion, if a florid or crimson colour and a greater or less affection of the throat. The early stage of the disease exhibits the usual characteristic symptoms of a commencing febrile attack, such as general irritability of the system, languor, headache, and occasionally vertigo, teething of food of every kind, but particularly...
animal food; chilliness, shivering, and occasional pains in the loins, joints and extremities. These symptoms are followed by heat of skin, quickened pulse, increased headache, pain swelling and redness in the throat; with difficult deglutition, there is also occasional redness of the eyes, along with impatience of light. The febrile symptoms are sometimes mild, at other times of a more severe description, but never entirely absent in simple cases fever is usually ushered in by vomiting, which is in many instances often repeated, and by so considerable a degree of sensorial disturbance as to give rise to delirium in many children who are old enough to manifest this symptom. The characteristic symptoms of scarlatina, however, the affection of the throat and the eruption on the surface of the skin, do not always make their appearance along with the first development of the febrile symptoms, but sometimes a day or two or even
a longer period elapses before the characteristic symptoms of scarlatina discover themselves. It not unfrequently happens, however, that in examining the fauces and pharynx, even at an early stage of the fever, a slight reddness may be observed along with a partial swelling of the tonsils. As the disease advances, the redness and swelling increase, and the patient complains of considerable difficulty of swallowing. The tongue is coated, particularly at its base, with a whitish or yellowish film accompanied by redness at the edges and point, while the papilla are raised. The bowels are constipated, urine scanty and dark coloured.

The cutaneous eruption is sometimes present at a very early period of the disease; but at other times it is not observable until the third or even the fourth day; constancy, with the appearance of the eruption there is sometimes mitigation of the febrile symptoms, but in others cases the fever continues with the same or
even increased intensity. Some writers have remarked that the suppurations, in severe cases of scarlatina, emit a peculiar and remarkable odour. The cutaneous efflorescence appears first on the neck and face. This, however, is not always the case, but it is sometimes noticed first on the chest or abdomen or even the hands and feet. At its first appearance, the eruption consists of numerous small red points, in the midst of a scarlet coloured ground, and not rising above the surface of the skin. The points gradually coalesce and form themselves into patches which are found to increase in size and diffuse themselves until the whole skin or a large portion of it assumes a scarlet colour, and sometimes appear as if swollen while the patient complains of a disagreeable itching sensation. The eruption has reached its height about the third or fourth day. It is generally observed to be most clearly (marked) about the groin, the inside of the thighs, the
lower part of the abdomen, and the flexures of the joints. In the morning it is fainter, and towards evening becomes more vivid. There is, in most cases, a proportion observable between the intensity of the fever and the vividness of the eruption. If the febrile symptoms are peculiarly strong, the efflorescence is often deeper in colour. In the course of five or six days, or in some instances eight days, the eruption begins to fade. The tongue loses a portion of the mucous coating with which it was covered, and gradually assumes its characteristic redness, while the papilla again become prominent. The swelling of the neck and throat now becomes less, and the desquamation commences. The period, at which this last stage of the disease begins, varies according to the severity of the fever and of the eruption. In the mild form, which is usually termed 'Paralata Lata,' the desquamation commenced about the fourth or fifth day. But, in severer cases, as in 'Paralata Anginosa,'
or malignant it does not begin until the eighth or ninth day. Usually, at this period, the
fever and the eruption begin to diminish in intensity; but in some cases there is a
slight increase of fever, followed by diarrhoea or epistaxis or in adult females
by the laceramenia or by turbid urine,
depositing a whitish sediment or by a
free perspiration, emitting a strong and
peculiar odour. The affection of the throat
now diminishes in intensity; the pulse
is calmer, neither so full, nor so quick,
as during the earlier stages, but somewhat
more rapid than natural, and soft or
glebe. As desquamation goes on, the
surface becomes scaled, and there is
an expolation of small serpiginous
scales of a whitish colour observed on the
trunks, while on the hands and feet where
the epidemic is thicker the scales are
larger. Some epidemics of scarlatina are
characterised by the abundance of the desquamated
and its almost universal occurrence; while
at other times it is scanty and often
wanting. The convalescence of the patient and now commenced, but it is sometimes interrupted by the appearance of symptoms of other diseases, which will fall to be considered as an after part of our treatise, under the sequelae of Scarlatina. According to the severity or peculiar characteristic symptoms of the disease, Scarlatina is generally classed by medical writers under three different heads. Where the symptoms are mild and the disease is simple or uncomplicated it is usually termed Scarlatina Simplex or Mitis. In this form of the disease the fever is moderate, the eruption makes its appearance at an early period, generally on the second or third day, and only continues till the fifth or seventh day, when the stage of desquamation begins. The mouth and throat are but slightly affected in this form of the disease, although, on inspection, a redness of the throat and fauces may be observed. It sometimes happens, however, that care
in which Scutulata presents itself, even in a very mild form, are followed by sequelae of a very serious character. It is in this form, indeed, that the Physician requires to exercise peculiar care in his treatment, as the occurrence of Aralaca is more to be dreaded, than when Scutulata assumed a much severer form. This, in a great measure, may be attributed to parents neglecting the use of precautionary measures which would not have been the case, had it been one of a more serious character; and thus by too early exposure to the cold air, and neglecting the requisite attention to cleansing the skin by means of the warm bath, the patient becomes more liable to the iatrophic affection, which sometimes proves as tedious even in these mild cases. Where the affection of the throat is of a peculiarly marked and intensely inflammatory character, the disease is generally termed Scutulata anginosus. This form of the disease commences with strong
febrile symptoms, accompanied with intense redness of the throat and fauces, and great difficulty of swallowing. The tonsils are swollen, and on examination a viscous secretion may be observed adhering to the inflamed parts, intermingled with patches of a grayish coloured lymph. The tongue is covered with a yellowish mucous coating, while the papillae are seen to be enlarged. In Scarlatina Anginoso, the eruption makes its appearance at a later period than in Scarlatina Simplex, not being observed before the 3rd or 4th day, when the febrile symptoms manifest great intensity. The patient's hot, thirst severe, pulse quick, full and strong. The patient now complains of the affection of the throat as being severe and painful, the swelling being in some cases such as to prevent deglutition, often with considerable stiffness of the neck and pain and difficulty of moving the lower jaw, due in part to the swelling of the submaxillary glands. The swelling of the tonsils increases rapidly, until they almost block up the
entrance into the pharynx, and thereby render the attempts to swallow so difficult that fluids are often returned by the nose. In some epidemics, the inflammation extends to the parotid glands and to the cellular tissue about the neck, the parts thus affected becoming rapidly swollen and acquiring a great size and hardness. In the epidemic at Newcastle in 1846, Dr. Charles in his account of that epidemic says — one of the most prominent symptoms was the frightful swelling and infiltration of the cellular tissue about the angle of the jaw, which often extended completely round, so as to encircle the neck with a collar of inflamed cellular tissue. The hard uniform swelling of the neck was often the symptom that first directed the attention of the parents to the throat. In very young children and infants at the breast, it was sometimes the only symptom. An eruption appeared on the neck, swelled rapidly, though seldom to the great extent observed in children of more advanced age, and the little patients were either carried off by convulsions or they died with symptoms of tubular pneumonia —
There is considerable exacerbation of the febrile symptoms towards evening, not unfrequently accompanied with delirium. Though the eruption at this stage begin to fade or suddenly disappear, an inflammatory affection of some internal organ is to be ascertained. Sometimes of the mucous membrane of the stomach and intestines or even of the membranes of the brain. At other times of the lungs or pleura or pericardium or pericardium. If inflammation has begun to develop itself in any of these important organs, the usual symptoms of inflammatory action may be observed. The disease now becomes of a complicated and dangerous character, requiring the utmost energy and skill on the part of the Medical Practitioner, to prevent a speedy termination of the life of the patient.

When Scarlatina assumes a Typhoid or Malignant form, accompanied with ulcerous or putrid sore throat, it generally receives the name of Scarlatina Maligna. There is not unfrequently a tendency, more especially in some epidemics, on the part of Scarlatina Anginosa to pass into Scarlatina Maligna; but in many
instances, the disease assumes a typhoid and malignant aspect from the very commencement. This is particularly the case in patients of weak and debilitated constitution, or who reside in localities which are low, damp and unhealthy.

At its commencement, Scarletina Maligna generally comes on with languor, lassitude, and a feeling of weakness, which is speedily succeeded by coldness and shivering, giving way to great heat. After some hours the fever becomes strong, accompanied with giddiness, headache, sickness, with vomiting or purging or both together. The throat soon begins to be affected; the face assumes a flushed, fieryish aspect; the eyes watery and heavy. The patient is fretful, restless, anxious, pierced with pain and great depression. The pulse, from the first, assumes a marked character, being small, quick and fluttering. The urine, when coloured at first, then becomes of a deep yellow colour, or in some cases it is scanty, turbid & high coloured. The fauces
Wound, tonsils and pharynx exhibit a red swollen appearance, with ash coloured or darkish excavations; a brown coating covers the tongue which is dry and sometimes chapped. The throat also becomes gradually a darker red or brown appearance, and ulcers may often be seen on the faucets and tonsils. The fever, at this stage, is of a marked lymphoid type, with hot skin, dry mouth, the teeth and lips covered with a foul, viscid secretion, and the breath is peculiarly fetid.

The eruption, in scarlatinian rheuma, generally appears on the second or third day, and it comes and goes with great irregularity, sometimes covering large portions of the body, but generally of a darker red than in other forms of the disease; at other times it is entirely absent. In very severe cases, petechia may be observed, along with the eruption, and occasionally there is edema. There is generally a painful swelling of the parotid and submaxillary glands. The
gangrenous ulceration of the throat becomes more severe, and an acid, acrid matter of an offensive description is discharged; when a portion of this matter is swallowed, diarrhea frequently comes on, accompanied with excoriation of the parts about the anus. The Pharynx is covered with deep sloughing ulcers, and sometimes also the Larynx and Trachea, occasioning the sudden suffocation and death of the patient. It not infrequently happens, particularly when Paratinea Maligna occurs in children, that the fever from the commencement is accompanied with coma, which continues more or less, until the disease reaches a fatal termination. In adult patients, the fever accompanied with delirium often passes into a state of coma, in very violent cases; and where the disease assumes its most malignant form, the eruption either suddenly disappears, or speedily assumes a dark bluish tinge; the face becomes black, the breath fetid, the eyes dull and sunken in the
pulverts; the face and urine pass involuntarily, the surface of the skin becomes cool; the face bloated and cadaverous; tongue dry; breathing laborious; occasional hectic and death rapidly supervenes.

It is now admitted, on all hands, that Pertussis under all the three forms which we have noticed is contagious, and frequently epidemic. Considerable discussion has arisen, as to the source or origin of this disease, in its epidemic form. It may arise from a specific poison generated in the atmosphere of peculiar localities; or it may arise from a specific poison generated in the body of the patient, and communicated from him to the surrounding atmosphere. Although the disease has been epidemic in many countries and for at least 200 years, no peculiarity in the state of the atmosphere in the localities where it has prevailed, has ever, as far as we are aware, been detected. But that contagion is communicated from the body of the patient, there is abundant
Evidence to prove. The fact, however, that it appears at one and the same time, in many families throughout particular districts, would seem to render it probable that there is some peculiar state of the atmosphere, which (although as yet undiscovered) gives rise to this disease. And even when it is raging with great severity in a district, it often happens that single cases occur in families, without being communicated to the other members of the household, seeming to indicate that there is a state of the body which predisposes to the disease. Some constitutions, indeed, are far more susceptible than others of being affected by epidemic diseases of every kind, and there are also peculiar localities, which, from their unhealthy nature, are liable to become hotbeds of disease under any form in which it may happen to be epidemic in the neighbourhood. There are certain seasons of the year in which scarlatina is more frequent than at any other; for instance
towards the close of summer and the com-
 mencement of autumn. Then the season
 is cold dry and clearning, epidemic scarlatina
 is generally checked in its progress.
 There is one peculiarity which marks
 this disease; that it is usually limited
 to children, or, at least when scarlatina
 is epidemic, a greater number of children
 are generally attacked, than adults, and
 the cases of adult patients are not
 only few but less violent. An indi-
gidual who has been once attacked
 with the disease, whether young or old,
 is, from what ever cause, less susceptible
 of being again attacked, for several years.
 Indeed the recurrence of scarlatina is
 comparatively rare.
 There is no disease which appears to exercise
 a more debilitating effect, both upon the
 mind and body, than scarlatina; but if
 there is one portion of the bodily frame,
 which it has more tendency to weaken
 than another, it is the absorbent system;
 and hence the absorbents, being incapable
of carrying off the fluids exhaled into the internal cavities, dropsy often occurs. This
however is not a symptom, but a sequela
of Scarlatina, and does not generally begin
to show itself, before the 12th or 14th day,
and in many cases at even a later period.
While the patient is thought, perhaps, by
all around him, to be fairly in the
way of recovery, a state of languor
and listlessness comes on: the face
assumes a somewhat tumid appearance;
the urine diminishes in quantity and
becomes of a somewhat bloody colour;
the swelling gradually extends itself from
the face over the rest of the body,
and the patient has become wholly
anastarctus. The most frequent cause
of the appearance of Dropsy at the
close of Scarlatina, is exposure to cold
air, before the patient has entirely
recovered: Accordingly, such an occurrence
is found to be more frequent in winter
than at any other season of the year,
and more frequent in young children.
of a weakly constitution, than in those who are more robust. As we have mentioned already, scarlatina is a more frequent sequel of scarlatina, in its simple than in its malignant form. So frequent is the occurrence of scarlatina that Cullen mentions it as in his definition of scarlatina. To explain the affection Dr. Watton remarks: "The escape of the fever poison, through the large outlet afforded by the skin, is checked or prevented; more of it is hurried through the narrower outlet of the kidneys and gives rise to its tumefactions and subacute outbreak, to what Dr. George Johnson calls acute ulcerative nephritis." The writer of the article "Scarlet Fever" in Dr. Copland's "Dictionary of Practical Medicine" thus explains it. "I have remarked," he says, "in many instances, as respects both the symptoms during life, and the appearances of the kidneys after death, sufficient evidence to convince one, that these organs are remarkably congested, and their secretion and tubular surfaces are the seats
of a similar vascular injection or efflorescence, to that existing in the vascular plexus of the skin, and that this efflorescence in the surface of the miniferous tuber &c. and the associated swelling and congestion of these organs during the early stages of the malady, either impede or interrupt or altogether suppress the function of urinary excretion, and thereby occasion an accumulation of excrementitious and contaminating materials in the blood, and consequently an increase of the poisonous action of the infected blood, upon the nervous system and on vital organs and parts, thereby producing further complications? Whether this be the case or not, the fact that the poisonous or vital influence in scarlatina, almost uniformly to a great extent, depressed, cannot fail to increase the force, and diminish the more righteous portion of the blood; and thus, if it be, could render anataraxia not an unlikely occurrence, connected with the coming on of an atonic or anataraxic state of the system, as a common sequela of scarlatina.
It may be mentioned, that an effusion of serum may also take place in the brain, in the chest, in the pericardium, or in the peritoneal cavity. These is sometimes found an effusion into the ventricles, or between the membranes of the brain, forming a complication of the disease, from the very commencement, and giving rise to coma, or a state of profound insensibility; but the same affection occurs, also, as a sequel, in some cases of scarlatina. In the latter case, however, it is not so rapid or acute, nor is it so generally accompanied with convulsions. Inflammatory affections of the lungs and pleura, accompanied with effusion, are more frequent sequela than effusion into the peritoneal cavity. Several writers have alluded to pericarditis, as occasionally accompanying scarlatina. Dr. Watson, however, instead of placing an affection of the pericardium, among the complications of scarlatina, mentions, on the contrary, that the affection of the joints—similation of rheumatism—
occurring in course of Scarletina, may be distinguished from true Rheumatism, by the absence of Cardiac implication. That occasional cases, however, of this cardiac complication have been found, is not improbable, from the circumstance that Pericarditis is liable to follow obstructive disease of the Kidneys; an affection which is not uncommon during the convalescent period of Scarletina. Sometimes, the sequela, instead of preventing them from as affections of particular organs, seem rather to exhibit a general debilitated state of the whole constitution; so that in the case of consumptive subjects, anaemic affections of the glands are found to occur.

The pathological appearances in Scarletina vary much; in course, according the severity of the general disease and the local affections with which it has been accompanied. In many cases, the surface of the skin exhibits, after death, no traces of the eruption by which it was covered; but, in other cases, the surface...
Appears of a livid colour, and generally in
patches, while the inflammatory appearance
of the mouth and fauces had generally
disappeared. The tonsils, however, are
often found to be enlarged, soft, pulpy,
and sometimes gangrenous. The pharynx
is often ulcerated and softened, and in
some cases the palate destroyed. In
malignant cases, the mucous surface of
the stomach and intestines, is often
soft and discoloured; there is sometimes
found an enlargement, both of the
spleen and mesenteric glands, as well as
a congestion to some extent, at leasts
of the liver and lungs. Dark blood
is met with in the auricles of the
heart and veins. The kidneys are always
found to be swollen and congested, and,
on dividing the organ, there is observed
an increased fixity. The bladder
is usually contracted and contains little
or no urine. When Scrofulosis is
complicated with particular local
affects, their pathological appearances.
correspond to the nature and severity of these affections. So that, in examining the bodies of patients who have died of Scarlatina, it is necessary to bear in mind the peculiar organs which seem to be most of all affected during the disease.

Almost the only disease with which Scarlatina is liable to be confounded is Measles, and yet the differences between them are well marked and can scarcely escape the notice of a Physicians of tolerable discernment. At the outset of the disease and before the eruption has appeared, Measles is invariably characterised by certain symptoms such as sneezing, defluxion from the eyes and nose, accompanied with cough and wheezing. No such symptoms are found to precede in Scarlatina.

Inflammation and ulceration of the throat, which are well known attendants on Scarlatina, are absent in Measles. But, independently altogether of all other symptoms, the eruption itself is sufficient to mark the difference between Scarlatina and
Measles. The eruption in Measles will arise more distinctly and more clearly than the eruption which appears in Scarletina, and is generally of a darker colour. The eruption in Scarletina, though it appears at first in minute points, yet in a short time cover a large portion of the surface, without leaving any interstices portions of healthy skin, such as are usually found in Measles. The eruption in Measles commonly appears on the fourth day; the eruption in Scarletina, at least in its mild form, on the second.

There is, however, another disease which is termed by Dr. Bethman Roseola, and which may sometimes be mistaken for Scarletina. But in Roseola there is seldom either a throat affection or any fever preceding the appearance of the eruption, and besides, Roseola appears in irregular rose coloured patches, which exhibit a very different appearance from the diffused scarlet coloured eruption of
Scurlatina.

The Prognosis of this disease varies, of course, with the form which the disease assumes, and the complications with which it is accompanied. In Scurlatina simplex, the prognosis may be said to be generally favourable, unless we take into account the probability of secondary diseases making their appearance, which of course ought to be carefully guarded against. In both Scurlatina Anginosa (and Scurlatina Maligna), the prognosis is very doubtful, and the danger is almost always considerable. Much, however, depends on the constitution of the patient, whether it be of a generally healthy or unhealthy character; on the type of the fever; whether it be of a phthisic or asthenic form; on the eruption, whether it be well developed, regular and continuous, or scarcely perceptible, irregular or intermittent in its appearance; on the affection of the throat, whether the inflammation be simple and mild, or accompanied with severe...
ulceration of a pungent, fetid character, with a tendency to gangrene; and finally, on the disease with which scarlatina is complicated, whether they be effects of less or more vital organs. In those cases where the disease is attended in with convulsions or with a tendency to coma, the prognosis is peculiarly unfavourable. If anasarca comes on during the scarlatina, or if there be an indication of effusion in any cavity at this period of the disease, the prognosis is also unfavourable. If the urine during desquamation becomes very scanty or remarkably albuminious or bloody, we have reason to dread the presence of some dangerous internal effusion or inflammation.

Treatment. The treatment of scarlatina must be expected to vary, according to the peculiar symptoms and severity of the disease. In scarlatina simplex, little can be said on the subject of treatment. All that is generally necessary is, that the patient be confined to the house; put on antiphlogistic diet and regimen; the chamber to be kept cool and well ventilated, sponging
The body with tepid water if the heat of the skin be considerable; when the eruption is on the decline, the hot bath every night is often very useful, in favouring the process of desquamation; while the child must be kept within doors, his diet still mild and unstimulating, and due attention paid to the state of the bowels, until the period is past when there is much ground for fearing the superinfection of dropsy. Scarcely anything else in most cases is required. 

In scarlatina benigna, if the disease sets in with strong febrile symptoms, sudden, quick and sharp, the skin red, and the system generally in an irritated and disturbed state, the efforts of the physician must, of course, be directed to reduce the febrile action or at least to prevent its increase. With this view, an emetic, at the commencement, is generally regarded as useful, its action being assisted by warm diluents. When the action of the emetic has subsided, a mild cathartic may be administered, such as galmerol,
or salomet with Rhubarb or Jalap, or perhaps along with Magnesia, and followed by a moderate dose of castor oil, according to circumstances; or if it be deemed better, a mixture of Salts and Laxatives. Caution is necessary, in the use of cathartics, that they be not too strong, as violent purging may add to the irritation, and in an early stage of the disease, may have an injurious effect upon the eruption. For the reduction of the febrile heat on the surface of the skin, and inducing the general irritation of the system, various means have been used. The well known and favourite practice, recommended by Dr. Barrie, has been, the free use of cold water, either by sponging, or to be blown, as has been recommended, a more effectual mode of employing this curative agent. By infusion, this has often been found to have a remarkably soothing effect upon the patient. Some Physicians, however, while they admit the utility of the infusion of cold water in some species of fever, as for example,
in continued fevers, object to its use in
Scarlatina, as having a tendency, in some
cases, to bring on internal effects of
one kind or another, and more particularly
those arising from the determination of blood
to some internal organs, such as the Kidney.
On this account, Dr. Sweetley recommends the
tepid bath, or the tepid sponging of the
surface. The febrile action is also
moderated, in most cases, by the use
of diaphoretic or diuretic draughts of a
saline nature, which are pleasant and
cooling. The Citrate of Ammonia is one
of the most useful draughts of this descrip-
tion. Gargles are very frequently required,
from the hot inflammatory state of the
throat and fauces; and of these, perhaps
the Citrate of Potassa is the most agreeable
and cooling, which may be thus administered:
Recipe, Citratis Potaarz. & Mellis Rosarz. 3j, aquae 35
 Fist gargarius, opoie retudam.
When the patient is so young as to be unable
to use gargles, it may be necessary to
inject a weak solution of the Chloride of
Soda into the nostrils and gums, by means of a syringe or elastic bottle. In ordinary cases of scarlatina arginosa, where no special determination of the blood, to any internal organ, seems to present itself, and there is no remarkable severity of the ordinary symptoms of the disease, the treatment now described may be sufficient. However, delirium should come on, and there appears an increased tendency of blood towards the brain, it may be necessary to shave the head and use cold applications to it, either in the form of cold water, or better still, if it can be procured, of ice. Leeches also may be applied to the head with good effect. It is necessary, however, to reduce, if possible, the strong vascular fulness of the cerebral vessels, by endeavouring to bring about a determination to the skin, by means of the application of flannel cloths, wrung out of hot water, and sprinkled with the spirit of turpentine. If the throat also be
affected, and there is an evident determination of blood to the head, leeches would be more effectually applied to the throat than to the head; it being quite probable that the head affection may arise from the swollen state of the parts around the throat pressing upon the great veins returning the blood from the head: and by applying leeches to the throat, in such a case, the Physician accomplishes a double purpose, in relieving both the throat and the head. In some cases, it may be necessary, where the delirium is violent and the fever very high, to take blood from the arm; although the results afforded by depletion, even when the disease occurs in the adult, are by no means encouraging; and in the child, the loss of blood, under these circumstances, is even less well borne; for that unless the patient be robust and phlegmatic, the cerebral disturbance was serious and the evidences of congestion of the brain very marked. Perhaps, it would be best to apply cold to the
head, and cold sponging of the surface. It is always necessary to pay particular attention to the state of the urinary excretion, and if, in the course of the disease, it should be suppressed or even become scanty, an emetic of hallucinosa may be useful, and a Tarpentine imburation applied to the joints and diuretics, either of the extracturate of Potash or the Citrate of Potash, may be administered.

Scarlatina (Malaria) requires more prompt and vigorous treatment, on the part of the Physicians, than either Scarlatina Simplex or Scarlatina Anginosa. The preelessness with which it often seizes the patient, and the rapidity with which it runs its course, render it one of the most formidable diseases, which come under the attention of the profession. The affection of the throat is, generally, one of the most palpable symptoms, which from its excessive severity, most readily attracts notice, and, if not early attended to, gangrenous ulceration may speedily ensue. The administration of wine and bark, from the very commencement, appear to be called for. Gargles must be
asserted to, in the form of a weak solution of the
chloride of soda, an tonic, of sulphate of zinc
with a little sulphuric acid, should be given,
followed by a granns effusion of Camomile
flowers or bark, to promote its operation.
Insective embrocations should be applied
to the cervix, and also around the throat.
Dr. Walton recommends a solution of the
Chlorate of Potash and water, a to to the pint
as a drink to patients in scarlet fever, and
in add. "Under the use of a Gent, or Gent and half
of this solution daily, I have remarked, in many
instances, a speedy improvement of the tongue,
which from being fiery and dry then become
cleaner and moist."
A decoction of Cinchona, is, sometimes, recomma-
ted to be given, every three or four hours, along
with the Carbonate of Potash; and if the urine
be suppressed, or nearly so, and present an acid
reaction, or is albuminous or bloody, Dr. Macleod
recommends a combination of the decoction of
Cinchona with the Leper Ammoniacal, and
the Carbonate of Ammonia, or either of the alkalies
in a state of effervescence, with a vegetable
laid. Chlorine has also been mentioned by several physicians, as a valuable remedy, in scarlet fever. Dr. Bennett, acting on the idea that the head symptoms in scarlatina, as in several cases of typhus, might probably depend, not so much on inflammation of the brain, which is generally supposed, as upon absorption of, and poisoning by, urea,
order of colchicums, in combination with
diuretic, in a case of this kind, and the result, he says was remarkable; for he adds, "On the next day, not only had the fever diminished, but the urine increased in amount, and loaded with urates, to an extent, and in a form, I had never previously seen." He recommends, therefore, a more extensive trial of this medicine, in cases of scarlatina, accompanied by diminution of urine and head symptoms. The mixture which Dr. Bennett used in the case now referred to, was composed of the following ingredients: - Spiritus Aetheris Nitrosi Zij
Retinae acetatis Zij. Tinctura colchici Zij. Aquæ Zij
Jus Mixture. - A tea spoonful every four hours.
Dr. Andrew Wood has brought forward a mode of treating Scarlet Fever, which has been found by him to be very successful. It is thus noticed by Dr. Bennett in his operations.

Several common beer bottles containing very hot water, are placed in long, worsted stockings, or long narrow flannel bags, wrung out of hot water. These are to be placed alongside the body, but not in actual contact with the skin; one on each side, and one between the legs, will be generally found sufficient. Carbonate of Ammonia seems to act most beneficially, by supporting the power of life, by assisting the development of the excretion, and by acting on the skin and kidneys. When Carbonate of Ammonia cannot be borne, Brandy may be given. No depilating measures must be adopted; local purgatives must not be given, during the first ten days, as tending to interfere with the development of the eruption. Dr. Bennett goes on to say: "The general plan of this treatment appears to be so far rational, that its object is to hurry forward the disease, by applying
rump next to the skin; and by thus acting on nature, to make her operations more perfect than they might otherwise be. In other words, by rendering the febrile symptoms more complete, diminish the risk of its leaving behind it a tendency to subsequent disease. Where the throat symptoms are very severe, a solution of nitrate of silver may be used, or of hydrochloric acid, or the chloride of soda, which will afford material relief, by removing the acid matter adhering to the fauces, which not only obstructs the breathing, but, if swallowed, is apt to produce griping and diarrhoea. Powders may, also, be applied externally to the throat.

The period of convalescence, in scarlatina, is one of considerable anxiety to the physician. What is chiefly to be dreaded, is the appearance of arterial symptoms, which sometimes occur most unexpectedly, even after the patient has passed through the disease, in its most favourable form, and without apparently any tendency to the formation of any other disease whatever. When the patient, therefore, is in
course of recovery from scarlatina, even in its mildest form, the utmost care should be taken, that he be not exposed to cold, or damp, or over-exertion of any kind. But if, notwithstanding all the caution which can be exercised, proposical symptoms do make their appearance, immediate recourse must be had to purges, or cathartics, or both, and to assist this operation, the warm bath is of great use. Though the use of diuretics might seem to be indicated, it is somewhat hazardous to resort to them, lest the congestion and irritation of the Kidneys, which almost always takes place in such cases, should be thereby increased. Leeches applied over the situation of the Kidneys, or cupping of the loins, will be found a proper remedy. Digitalis, administered in small doses, has been found an effectual medicine, in cases of dropsy, after scarlatina.

Where inflammatory diseases seem to show itself, in any internal organ, as a sequel of scarlet fever, the most active measures require to be adopted; such as, blood letting, either general or local or both, if necessary.
and the exhibition of忿怒ント Medicines; the 
use of Mercury, also, has often proved mos -

effectual.

If, at recovery from Scarlatina, the constitution of 
the patient, seems to assume a remarkably 
weak and cachectic character, and small but 
numerous abscesses appear in various parts of the 
body; it becomes the incumbent duty of the 
Physician, to endeavour to support the strength 
of the patient, by wine and nourishing diet, and 
to correct the tendency to porphorid affections, which 
have evidently begun to manifest itself, by the 
administration of the Salicylate of Citrate of Iron.

As Scarlatina, not only occurs in individual 
sporadic cases, but often in the form of an 
epidemic, prevailing throughout a limited 
district or locality, and, as is generally believed, 
propagating itself by means of contagion, 
the attention of Physicians has been, frequently 
directed to the discovery of some Medicine, 
which might be found to operate, as a 
Prophylactic or preservative against the disease. 
Several presentations, of this kind, have been. 
accordingly, proposed, but it is not unlikely
that the action of every such remedy is more indebted
for its efficacy to the imagination of the patient, than
to any actual virtue in the medicine itself. The
most noted Prophylactic is that which was proposed
by Hahnemann, the father of Homeopathy—the
use of Belladonna, either in the form of one 8th
part of a grain given twice a day, or three grains
of the extract dissolved in an 8th of distilled water
and 3 drops of the solution given twice daily
to a child 12 months old, and one drop more
for every year above that age. Some Physicians
have recommended ipecacuan as prophylactically
against Scarlatina. One believed in the efficacy
of Rhubarb, and another in that of Salmiak;
several writers propose the mineral acid, and
Dr. Swett seems to be favourable to the use
of the Nitric Hydrochloric Acid. But the best, if
not the only, Prophylactic appears to us to be
non-exposure to the risk of infection as far
as possible. Where the disease has broken
out in a house, the other branches of the
family ought to be kept carefully separate
from the patient, and all means of communication
as far as it can be done, should be cut off.
And yet, whatever precautions may be used, if the disease be prevailing as an epidemic, it is very difficult to prevent it from diffusing itself, but as a general remark on the subject, it may be said, that during the prevalence of Scrofula, as an epidemic, it is well that parents and guardians should pay more than usual attention to the diet of children, that it be light and nourishing, that the apartments of the house be properly ventilated, and that all the young persons under their charge enjoy moderate exercise in the open air, provided the weather be favourable for that purpose.

William Burnet Lang