AN INAUGURAL DISSERTATION
ON
Scarlatina
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BY
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Scarlet Fever

I have selected this as a subject for my thesis from the fact that I had better opportunities of witnessing this than any other disease.

It prevailed epidemically in the spring of fifty seven on Elk river. The stream on which I now live, developing itself in all of its three forms, spoken of by writers. Presenting itself as it did here in some of its forms is one of the most alarming and dangerous
diseases that can affect any family. Scarlet fever like measles is an eruptive fever, propagated by contagion, running a definite course, and as a general rule it which includes the exceptions are extremely rare affecting persons but once in the course of their lives.

Its origin is more known than its cause. By many it is supposed to have spread from its first bent by communication from one to another and in this way only.

It would appear to me that the same combination of influences could occur, capable of generating it at this day and
Time, which of old engendered
the disease originally.
This disease certainly does origi-
-nte at times without our being
able to presume that it had
been imported to the locality
in which it prevailed, which
was undoubtedly the case in
my own neighborhood, what
these combination of influences
were I am not able to say,
nor does any one know.
The most common belief I
think at this day is, when one
an individual has become affec-
ted with this disease, a poison
is generated which can be trans-
mitted by diffusion of the
myazoid through the atmosphere
from one to another. After this contagious poison has penetrated the system of an individual, it remains for some length of time in a quiescent state, without affording any indication of its presence. This is called in this and other contagious diseases the latent, or period of incubation. Scarlet Fever has been divided by writers into four varieties. I have seen it develop itself in three of its varieties, Searlatina Simplex, Anginoso, and Maligned. These are the main varieties, but every variety is Scarlet Fever modified by particular circumstances, as by the constitution of the patient.
and the locality in which the epidemic prevailed.
It has also been affirmed by writers that epidemics of
scarlet fever are more frequent during the winter than
at any other season of the year, when atmospheric chang-
es and copious rains followed by continued heat is thought
To be favorable for its produc-
tion.
Scarlet fever is a disease that
affects all ages, and prevails at
all season, yet there may be
a favoring influence exerted by
The seasons to the spread
of the disease, and again there
may be greater predisposition
in some than others, for we frequently observe persons who
has never had the disease
off through epidemics unaffected, whilst others cannot
off with like immunity.
The young of both sexes are
equally liable to be attacked.
The young rather than the adult
or aged, I might say it was
a disease confined to childhood,
from the fact that it is seen
comparatively seldom in after
periods.

In more advanced life the
system appears to be but
little impreved with it.
Simple Scarlet Fever occurring
in a healthy individual is a
disease devoid of but little danger, yet danger does arise at times from the super-
version of more urgent symp-
toms, which characterize
the anginose or malignant variety of this disease.
It is often indicated by the
sudden recession of the erup-
tion, as well as by its tardy
or irregular appearance.
Scarlatina seems to occur at
times without the eruption
which is not characteristic of
the disease, leaving a doubt
as to whether it was genuine
scarlet fever or not.
This variety of it may be so
called, is thought to be as
capable of producing the disease as well as the other variety. Scarlet Fever is thought to be communicable from the very commencement of the attack through the eruptive stage, and until desquamation has ceased. The period which elapses between the time of exposure to the poison and the eruption of this disease (which is called the latent period) is from two to eight days.

Scarlet Fever is a disease which cannot easily except at the commencement of an attack, be confounded with any other disease except measles. At the first appearance of the
eruption it may be impossible to distinguish it from measles but time soon discloses the fact.
The eruption of scarlet fever is not so prominent as it is in measles and the spots are larger and they do not leave between them those irregular spaces in which the skin preserves its natural color. There is a difference also in the desquamation of the cuticle in scarlet fever. It takes place in large flakes whilst in measles it is thrown off in small scales. The circumstance too of our knowing the existence of an epidemic in a locality
and of a probability of exposure. To its influence will avail us to some extent in making out our diagnosis. Sometimes in simple scarlatina. The fever varies both in intensity and duration, being sometimes very slight at others more violent.

Those whom I had an opportunity of seeing affected with this disease was in a family with whom I was very intimate. and related, consequently had every good opportunity of witnessing the disease in all of its varieties, from the simplest to the most malignant. Those affected with the simplest variety of this fever first complained.
of nausea and vomiting followed by slight chills and afterwards heat of skin, thirst, headache and more or less stupor. About the second or fourth day from the invasion of these symptoms, the unmistakable symptoms presented themselves, high fever, with efflorescence of the skin in the form of small diffused spots but not distinct from each other and not above the level of the skin, as in measles. These spots gradually coalesced so that on the face, neck, and upper extremities the eruption was uniform and continuous, but over the trunk it was
diffused in large irregular patches. About the fourth day the eruption was at its height, to gradually disappear in the order in which it invaded the skin. After the expiration of a week or ten days desquamation set in, separating flakes of skin from the hands and feet. Such has been the course with those I have seen laboring under the milder varieties of the disease and the course most usually taken by the disease, but it sometimes becomes modified by certain circumstances, which makes it at times assume new characters that are quite different from what it was at
first. Frequently these symptoms becomes so urgent as to characterize the anginose variety, which is essentially the same disease only modified as I remarked before by certain circumstances, as by the constitution of the patient and locality if it may be said to exert any influence on the disease, in the way of making it assume this new type. Those whom I saw affected with this anginose variety were taken pretty much like those who had simple scarlet fever first nausea and vomiting, but soon more urgent symptoms were ushered in their throats soon became affected which was very distressing.
voiced hoarse and deglutition difficult. Their throats soon became covered with a vivid secretion, or flakes of matter of a yellowish cast, analogous to what is seen in certain diseases of those parts. This secretion often gives rise to constant and distressing efforts for its expulsion.

The eruption did not make its appearance on those affected with the anginose, so soon as it did on those affected with the simple variety. In some few cases it did not make its appearance for several days after the attack had set in, and then it was not continuous over every part of the body.
The efflorescence consisted of patches of a raspberry hue, scattered over the chest, neck, and extremities. These patches soon disappeared. I have seen several affected with the anginoso variety, where there was no eruption discoverable to the eye.

When the efflorescence was irregular, and scantily desquamation was very slight, when great desquamation was in proportion leaving the patient involved in a new skin.

The febrile symptoms, with the effusion of the throat, usually began to disappear with the cutaneous eruption, leaving at times, however, some degree of febrile
excitement, and sore throat, after the eruption had entirely disappeared. The anginaloid variety of patients seemed to suffer a great deal more than those who had simple scarlet fever. Those affected with this variety of the disease was at their worst on the sixth or seventh day after the commencement of the attack when the pulse became frequent but its strength was by no means equal, respiration was greatly oppressed, and thirst urgent. This variety is said to be very dangerous, from the great tension of inflammation in some of the
Serous membranes - Encephalio - Thoracic or Abdominal as well as from the great distress that lies on the throat.

I have seen several laboring under this variety of the disease but none in which these effects of the serous membranes presented themselves.

The inflammation of the mouth and fauces extends extended to the mucous membrane lining the nose so as to give rise to an erect discharge from them, and a disagreeable itching.

The chances of recovery are much greater in this variety of the disease when the eruption remains out on the surface when it disappears
suddenly we apprehend some internal mischief will be set up such as inflammation of the mucous membrane lining the intestinal canal, giving rise to diarrhoea that may prove fatal. The progress and degree of severity of scarlet fever differ greatly in different subjects; sometimes the deviation from the natural feelings of health is so very slight as scarcely to deserve the name of a disease. When at other times it assumes new character, that are even worse than those we have enumerated. It is not unfrequently the case that the symptoms become so urgent as to defy all treatment.
Writers have given to this the
name of Scarletina maligna.
I have seen ten cases with this
variety, and but two to recover
from it; four died within twelve
hours after they were taken, and
four others within two or three
days from the invasion of the first
symptom;
they were taken much like
those who had the other varieties,
but soon the malignant type
became indicated by fever distinct-
ly of a typhoid form, in which
the pulse was small, and irregular
the tongue covered with a brown or
dark incrustation, and their eyes
much injected, vision greatly con-
fused, difficult respiration, and
persistent Coma announced the
approaching dissolution.
The efflorescence is said to be extremly irregular in this variety both
in its appearance and duration,
frequecntly arising late and
remaining out only a few hours.
It recedes and recurs several
times in the course of the disease.
It is also said to be later in this
variety than in the other varieties
of the disease. How this is I am not
able to say. These I said laboring
under this variety had no efflo-
rescence on the surface that was
discernible to me but this might
have been owing to the fact that
most of the patients died before
the efflorescence had time to
develop itself. In this variety there was greater inflammation than in the other varieties. In some cases the inflammation was so extensive that deglutition was impossible, fluids taken in to the mouth being thrown off by the nose. The inflammation marks in a measure the severity of the disease in the anginose and malignant varieties, where this is slight, the danger is less, but if extensive and terrific, great danger is in proportion. After the disease has assumed this type one of its best characteristics is the pulse which becomes frequent and labile and continues so up to the time the patient expires.
The tongue too, becomes dry, brown, and tremulous; debility extreme; the throat ulcerated, and the respiration impeded by the viscid mucus which collects about the larynx. Patients laboring under this variety of the disease most always die and suddenly, or at least those did I saw affected with it. After a brief description of each variety enumerated, it becomes necessary at this point for me to say something of the sequels of the disease, which is almost as dangerous as the disease itself. The one most common is anasarca, sometimes however dropsy takes place in some of the larger serous cavities Abdom.
inal or Thoracic. The sequel is thought to follow most commonly after the milder variety of the disease, rather than after the severe. This is thought to be owing to the fact that left care is observed in the milder than in the severe varieties during the period of desquamation and convalescence. And the severe varieties, convalescence is slow and more doubtful and accidental or careless exposure is more guarded against; whereas in the slighter forms the patients are apt to go out, not knowing the danger of such exposure.

I will arrange what I have to say of the Treatment of Scarlet Fever.
according to the three varieties which I have enumerated.

The treatment of a disease has to be according to the symptoms that present themselves, which must be met with appropriate remedies. The first of these, called scarlatina simplex, is not complicated with any other symptoms than those that usually follow this variety, nothing more is required, but to enjoin confinement to the house, and paying particular attention to the state of the bowels, if constitive it would be necessary to administer a gentle cathartic so as to move them gently. Should the heat of the surface become too great, I should...
recommnd my patient to be sponged with cold water, provided no unpleasant sensation was produced by it, if any I should withhold the cold, and use in its stead the tepid water.
As long as the febrile symptoms were great I should recommend the internal use of ice or cold water to favor the eruption.
Formerly, heating drinks were administered with the view of favoring the eruption, but they are now known not to be so good as colder ones.
With respect to the management of the more severe forms of Scarletina, great difference of opinion have prevailed. Some recommending
Cemetics, whilst others again recommend the application of cold water to cut short the disease at the time of the invasion of the first symptom. I do not believe any great benefit can be derived from the administration of either of them, as the fever depends, as I believe, on a poison in the blood, which cannot be removed by vomiting, or washing the skin with cold water. But I do think cold sponging would be very refreshing to the feelings of the patient. Particular attention should be paid to the state of the bowels, as was done in the milder variety, so as to keep them gently moved by some mild laxative.
Should the throat become much inflamed and swollen so as to cause difficulty of deglutition, I should recommend leeches or blisters to be applied, which will in a great measure the tumefaction by attracting the circulation of the diseased part to the surface on they were applied. Should no encephalic symptoms present themselves not the affection of the throat did not become so urgent, I should content myself by giving some cooling draught, ice water or lemonade.

With respect then to this variety, I think the principal of treatment should be not to interfere unnecessarily, but to meet any unfavorable symptom that may
present itself during the attack. I should recommend in this, as I did in simple scarlet fever, cold sponging if it created no unpleasant feelings, at the same time allowing ice if the thirst was urgent.

In the anginae variety most of the strep lies in the throat, and which should be treated with appropriate remedies such as I have enumerated. I should also expect to derive great benefit from gargles, their efficacy has been highly extolled by some in this affection of the throat. They remove the vitious secretion, and excite the inflamed parts to healthy action for this purpose as great many have been recommended, but I should give preference
above all others, to the muriatic Acid gargle which is grateful and removes more readily the viscid secretion from the diseased parts. 

Rx Acid muriatic gtt + 

Nellos 3 111

Aqua 3 6

Should my patient pass through the fever, and affection of the Throat, I should think it necessary to give him a nutritious diet, and to allow Tonics if debility was extreme, which is not unfrequently the case after attacks of this variety. It remains for me to speak of one of the most formidable varieties of Scarletina, to which has been given the name Scarletina maligna and one too in which all our care
will be too often in vain.
In this variety there appears to me to be two main sources of danger: one arising from the impression of the contagious poison upon the system, and particularly on the nervous system, and the other source of danger is from the ulceration of the throat afterwards.
I am at a loss to say anything about the treatment of this variety of the disease; for one treatment seems to act as well as another, as for the benefit we derive from it. The depressing influence of the poison on the system is so great that it cannot hold us under its influence long enough for medicine to exert its salutary effects. If we could save such patien...
into as these I would be I think by the liberal administration of diffusible stimulants, so as to sustain the flagging powers until the deadly angency of the poison had in some degree passed off, Should my patient be so fortunate as to pull out of this state of depression then we might expect the next source of danger to arise from the ulceration of the throat. I should in this stage of the disease think it proper to keep up stimulants, at the same time using gargles as recommended in the beginning when which will remove all offensive matters from the diseased parts. Lastly my patient having got through the affection of the throat, and much debilitated I should put him on tonics, and let him recover at his leisure.