AN
INAUGURAL DISSERTATION
ON
Tasiola

SUBMITTED TO THE
PRESIDENT, BOARD OF TRUSTEES, AND MEDICAL FACULTY
OF THE
UNIVERSITY OF NASHVILLE,
FOR THE DEGREE OF
DOCTOR OF MEDICINE.

BY

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OF

Tennessee

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W. T. BERRY & CO.,
BOOKSELLERS AND STATIONERS,
Nashville, Tenn.
In examining the catalogue of malignant diseases, we find none that strikes us with more appalling terror than smallpox. Even Asiatic cholera, the dreaded annonster of death, which has been aptly styled, "the pestilence that walketh in darkness and the destruction that wasteth at noonday," cannot be regarded with more intense interest.

All classes are alike miserable. No one protected individual is exempt from the ravages of this disease. The lord of many estates, dwelling in princely palaces, and the poor monaste of the
Novel, are alike liable to this terrific malady. No latitude or climate, is free from invasion. Far away towards the North pole, the Laplanders wrapped in furs, and dwelling in tents of snow and ice, as well as the Equatorial inhabitant, who has pitched his tent by some oasis in the burning desert, is susceptible to the contagious influence of Variola.

Although this is a disease of which nothing novel can be presented for your consideration, and which will scarcely admit of an original idea, yet if we turn for a single moment to its dark and eventful history, and behold the wide spread desolation that has followed in its train, we are compelled to admit that it will always fire the attention of the
Philosopher in Medicine.

How long smallpox has had an existence in the medical world, we are not able to glean satisfactorily from history. Al Raz, in Arabic physician, is the first acknowledged writer on this subject. He distinguished about the tenth century, and laboured hard to prove that Galen had seen this disease, he also quotes earlier authors, and from their history it appears that smallpox was introduced into Egypt by Omar, the successor of Mahomet. In China and Hindostan, indications of its occurrence many centuries since are inferred from tradition, but the traditional history is so enveloped in mystery & obscurity, that we cannot seize upon no certain era of its commencement or transmission.
history both traditional and written, furnish, correspond with the indications of sound philosophy. It is almost a self-evident proposition, that the inhabitants of a tropical climate, exposed to a burning heat, and suffering under the innumerable evils of Oriental Despotism, must become subject to diseases of a peculiarly malignant type. The succession of conquering armies, unwholesome atmosphere, and the poverty of the lower classes must have conspired to stamp fatalty on their maladies. Hence in these regions we find the most malignant diseases, the plague and the small pox. It was introduced into Spain and Sicily during the eighth century, by the success of the Saracens Army, and gradually extended itself throughout the different countries of
Europe. Losing sight of the glimmering light which the uncertain records of these periods afford us, we find indelible traces of its progress in the fifteenth century. Columbus having discovered the Western Continent, and his countrymen flocking in numbers to the "El Dorado of the West," to reap an early harvest, bore with them the concealed vices.

St. Domingo. The magnificent empire of the Montezumas were almost depopulated. In succeeding years it has been equally fatal. Iceland, Greenland, all the countries of Europe and our own country have suffered more or less from this scourge.
Smallpox is an eruptive, febrile, contagious disease. We have two kinds of the disease, natural and inoculated. It is likewise divided into two grand varieties, distinct and confluent.

The distinct variety obtains where the pustules are separated from each other, being circular and elevated. While on the contrary if the pustules coalesce are circumscribed by minute areola, irregular in shape de, we have the confluent variety. In this form of the disease the pustules do not accumulate but appear flat on the surface, and particularly on the face coalesce and form large dots.

This disease from commencement to its termination is divided into five stages.
Stadium - that of incubation

1. The feverish
2. The febrile
3. The bubonic
4. Maturation
5. The Decline

The period of incubation is of variable length, and embraces that period which elapses between exposure to infection or contagion and the appearance of manifest symptoms of the disease. In the most severe cases this space is short; in cases of a milder type it is proportionately longer.

The period of incubation generally varies from seven to fourteen days, yet it is often extended to twenty days or sometimes even further than this. While on the other hand it is often diminished to seven, five, and four days. During this time
the individual suffers but little indigestion, but the next stage supervening, deleterious effects are manifested.

The second stage is the febrile.

This stage is marked by an increase of the Constitutional disturbance. The symptoms generally come on in the evening, or late at night. The bad manifestations are often ushered in by chilly sensations, severe pain in the head, back, limbs, nausea, vomiting, palpitation of the heart, thirst, flushed tongue, dyspnoea, pain and heat in the epigastrium, restlessness, and prostration. In the adult we have constipation. In children you may find the reverse. Sometimes we have succeeding all these symptoms, cough, lethargy, and coma. The tongue which was at first
White, now becomes red at the tip, and finally the redness spreads over the entire surface.

In this stage, of the confluent variety, there is a decided increase of all the bad symptoms; more nausea, vomiting more frequent, and general prostration much greater than in the distinct variety.

This stage often lasts from Twenty-four to eighty hours, and many of the unpleasant symptoms abate on the appearance of the eruption.

The third stage of is that of pustulation.

About the third day from the commencement of the second stage the eruption makes its appearance, and a manifest relief is afforded by the outburst of the eruption. Satiety, depression, &c.
disappear:
disappearance of vomiting, yield, while
the pulse returns to its normal condition.
The eruption first makes its
appearance on the lips, alae of the nose,
chin, neck, wrist, and finally invades the
rest of the body, appearing lastly on the
foot and legs. Very frequently, the
day previous to the eruption, the whole body
is suffused with a deep red flush, which
may be regarded as a sure indication of
small pox.
The febrile symptoms generally subside
on the manifestation of the eruption,
and in mild cases never return.
But in more malignant cases, they may
by undergo a slight remission.
The progress of pustulation is
indicated by red points conical in
shape and hard to the touch.
In the distinct form, the spots are few, and separate. You may discover by close observation with the glass, on the summit of each papula, a small vesicle. These papulae have red and inflamed bases with transparent apices. On the third

On the fourth or fifth day of the eruption the papulae with their inflamed margins continue to increase, and the vesicles which are filled with transparent liquor sanguinis change from a conical to an umbilical form. There is generally at this period of the disease, an increase of the febrile symptoms. There is also an increased flow of saliva, with soreness of the faucies, and painful deglutition. The mucous membrane of the mouth and pharynx is red, swollen, and congested, frequently hard, dry, and troublesome cough supervenes.
A peculiar, and highly disagreeable odor may be discovered arising from the patient towards the latter period of this stage.

When the papulae are very numerous, coalescing on all parts of the body, and particularly on the face, we have the variety termed confluent. For the first day or so there is no marked difference between this and the distinct form. The fever is generally more severe and greater pain in the back and extremities. The eruption makes its appearance a day earlier than in the distinct. The papulae are not so much elevated, but so coalescing as to cause swelling of large surfaces. The depressions which are so well developed in the papulae of the distinct variety are scarcely perceptible in this.
Not only the Cutis Verrea, but also the sub-13
facent cellular tissue is involved in
extensive inflammation in the confluent
form. Ulceration is established in the
Cutis Verrea which is the cause of pitting.
The distinct and confluent variety
often appear at together, the eruption
being confluent on the face, and
distinct over the body.
The period of pustulation generally
embraces five days.

The fourth
stage is that of Maturation, and
occurs on the fifth or seventh day of
pustulation. There is an increase of
the contents of the vesicles. There is
also a considerable change produced
in the character of the contained
fluid; for during the last period we perceived that the vesicles
were filled with a transparent liquor sanguinis, which about this period increased greatly in quantity, extends towards the basis of the papula, and changes from a serous to a purulent character.

The vesicles also undergo a change of form, for the vesicles which in the last period, changed from a conical to an umbilicated shape, now become spheroidal and flattened. The maturation of the pustule is completed in seven or nine days from the eruption. About this period secondary fever sets in, and continues with more or less violence, varying of course with the quantity of eruption, habit of the patient, and other circumstances, until the pustules burst and give vent to a portion of the fluid. This phenomenon generally takes
place about the eleventh day of the eruption, there dedication, or decline commences.

Suppuration begins first on those parts of the body where the cutis vera is the most delicate; hence it is that if we first observe it on the face, and lastly on the hands and feet.

When maturation is about completed, there is great weakness of the skin, tumefaction, sense of tension, pain, throbbing, The eyelids, nose and lips are much swollen. There is also congestion and swelling of the mucous membrane of the mouth, attended with profuse salivation. Also at this period there is great lethargy and restlessness, manifestly indicating that the nervous system is greatly depressed.
We now come to the fifth and last period of this disease, which is marked by dessication of the pus, and the formation of scabs over the former pustules. Cessation commences and in healthy constitutions is completed in eight or ten days. About the day from the eruption, the scabs darkern, especially on the face, and it frequently occurs that crusts or scabs are seen on the face, before the pustules have matured on other part of the body. These crusts are formed either by a complete dessication of the pustule, or by a drying up of the pus, as it exudes from the ulcerated surface. The scabs fall off from the eleventh to the fourteenth day of pustulation, leaving the skin beneath of a deep red hue, which remains.
for several weeks, and the pits which have been formed by ulceration of the cutis vera, now become visible.

In this stage, the drying of the pustules is accompanied with intense itching, which induces the patient to scratch and tear the skin.

In cases of great severity, as also obtains in the Confluent variety, desiccation and excoriation are much more tedious, and there is a greater loss of substance in the cutis vera, and consequently the pits & sears are more numerous and indelible.

In all mild cases, where maturation is effected over the whole body, febrile symptoms subside entirely.

"But in more severe forms of the disease, where the cellular tissue and glands are involved, the fever instead of
abating, when the stage of maturation is complete, increases. The pulse is accelerated, skin dry and hot, tongue covered with white fur, thirsty.

Then this is the case, secondary fever is very apt to return.

Diagnosis: ___

Prognosis: ___
Treatment

The treatment of smallpox, up to the time of Sydenham, was alike fanciful and arbitrary. The patient although labouring under a febrile disease was harassed by every means calculated to increase the heat of the system, such as "hot air, hot drinks, opium, warm bed clothes &c."

It was gradually that wiser and better measures were adopted for the purpose of relieving the symptoms of the disease. A few physicians from time to time, abandoned the indiscriminate use of the hot regimen, and thus led the way for the great improvements of Sydenham, who allowed his patient
fresh air, prohibited the use of stimulat-
ing medicines. Viewing it as a high-
ly inflammatory disease, he advised
a corresponding mode of treatment.
And although he may have erred in some of his directions,
Yet the change he made in the
Treatment tended materially to
lessen the mortality of the disease.
It remained however, in
his hands, what it must continue
to be with physicians, an intracta-
ble disease.
There are many mal-
edies whose progress the practitioner
can arrest, but he is comparatively
a spectator in this disease, he can
not cure it, neither can he cut short
its leading symptoms, he can
merely mitigate and ward off
their dangerous consequences.

Great diversity of opinion has prevailed, regarding the propriety of
blood-letting in this disease. Unless
the reaction be very great, violent and
there is evidence of local determination
I should not consider the use of the lancet
at all necessary. On the other
hand, if the pulse be very strong and
manifest symptoms of local deter-
mination, as redness of the eyes, face
difficulty of breathing, pain in the
head, &c., I should think it was highly
called for. Occasional purging
and the usual anti-phlogistic treat-
ment, appear to be advisable through-
out the whole period of febrile expec-
tation. But when the disease is
uncomplicated in its nature,
the most simple treatment.
should be called into requisition, such as confinement to bed, clothes, the cooling regimen, cool and equitable temperature, frequent change of linen, and an attention to the "symptoms as they rise."

Colonel appears to be one of the best purgatives in this disease. The neutral salts appear remarkably well in during the eruptive fever. When the stomach is loaded with incoeta or otherwise deranged an emetic will be beneficial, especially in the commencement of the disease.

Diaphoretics have been employed in moderating the violence of the fever, e.g., "Yantarized Antimony, Nitre, Saline effervescing draughts, Pho-Minodereau, Nits Nitri Dulci 6de,
all of which have been employed for this purpose.

Gargles have been used for inflammation and dryness of the mucus membrane of the mouth and fauces, applied

Leeches may be employed to the epigastric region, when there is pain in that region attended with violent vomiting. “Mineral acids with infusion of roses may be beneficially used in case of hemorrhage.

Emollient applications to the eyelids, when the conjunctiva are painful and swollen.”

The most valuable remedy for moderating the febrile symptoms is the admission of cool air into the patient’s apartment, which should be large and commodious.
The drinks should be of a cooling nature. The patient may also have a cloth dipped in cold water, and laid over the mouth, so that he may breathe through it, which is both grateful and beneficial.

If the eruption is slow in making its appearance, the patient might be immersed in a warm bath, and tartarized antimony and sudorifics administered.

Pain in the spine is often relieved by counter irritation, friction, or sinapisms. Aperients containing forty drops of "wine, opii" also beneficial in allaying nervous irritability. An ice may be used internally and externally to the stomach, when that organ suffers from inflammation.
In conjunction of any particular organ, direct your treatment expressly to that organ, by the use of cups, leeches, &c.
And here I would remark that local bleeding may be employed in any stage of the disease, when the symptoms indicate the serious conjestion of any particular organ.
Depilation should however be employed with caution for fear of its debilitatory influence.
Opiates are not indicated in the primary fever, because of the increased susceptibility of the nervous system.
In the secondary fever, however, they are frequently exhibited with much benefit.
At the close of the eruption you may give a gentle laudanum.
And when there is a great prostration...
And if the patient seems to be falling into a typhoid state, tonics and stimulants are highly indicated.

Carbonate of ammonia, wine weak, wine brisk, aided by friction, warm mustard baths are.

Belladonna has been recommended, both as a prophylactic, and as a curative disease means.

Various retrostic methods have been presented for the purpose of preventing pitting.

The application of the nitrate of silver in solid form has been spoken of very highly. The stick is applied to each vesicle, when it first makes its appearance; and its further development is arrested.

The face has also been painted
over with a solution of the caustic,
twenty or thirty grains to the ounce of
water.

It has also been suggested
to confine the patient to a room
completely darkened, under the
supposition that the light had a
expected a deleterious influence,
but many objections obtain to this
last method.

Gold leaf has been applied.
Sulphur ointment is often used
by slight friction to the surface.

According to Prof.
J. R. Mitchell, the compound
mercurial plaster composed
of equal parts of Mercury and
litharge, is the best electotic measure.
A mask should be made to
suit the visage, and applied to
Soon as the particles begin to develop, Mr Mitchell professes to know from his own experience that this will act as a sure preventive of disfiguration.

It might be thought proper, that I should say something of vaccination, as a preventive of small-pox. But were I competent to enter into a full consideration of this subject, I should far transcend the limits of this paper. I shall therefore close by remarking that the immortal Jenner will always be considered the greatest benefactor of his race; and the discovery which he has bequeathed to us, will ever be esteemed the most inestimable blessing derived from medical science.