AN INAUGURAL DISSERTATION
ON
"Varicella or Small Pox"

SUBMITTED TO THE
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Variola.

We know nothing definite concerning the origin of this disease as it is lost in antiquity; but there is no proof that it was known to the ancient Greeks or Romans; though it appears to have prevailed in India and China from time immemorial. Rhazes an Arabian wrote the most definite account of it in the tenth century. Europe first became acquainted with it through the Arabsians: and it is said to have first shown itself in Arabia about the time of the birth of Mahomet and to have invaded Syria, Egypt, and Southern Europe with the armies of his successors. It is an emulsive fever propagated by contagion.
A definite course and affecting a person but once during life. It is characterized by an initial fever of three or four days duration succeeded by an eruption which passed through the different stages of pimples, vesicle, and pustule, and dries at maturity in eight days. This disease like many others of different Characters commences with febrile symptoms rigor followed by nausea and vomiting; pain in the epigastrium and head; hard and frequent pulse, and dryness of the skin. We sometimes have delirium, and sometimes convulsions mark its beginning; either of the two latter symptoms enable us to prognosticate a serious form of this disease. From the earlier symptoms we are unable to diagnose
unless it is known that the disease is prevailing and the patient has been subjected to the contagion, and an early diagnosis is important as we might by judicious measures somewhat lessen the severity of the disease.

When the fever develops itself, the skin is dry, the tongue is white, in the centre, and red at the point. The bowels are torpid, the urine scanty and of a deep red colour. Sometimes during the first or second days we have hemorrhages, and the mind becomes depressed and confused.

There are various other occasional symptoms: a tendency to perspiration is sometimes observable, soreness of the throat, sneezing, and an excess
of tears are not uncommon. The fever is often decidedly remittent with daily exacerbations and continues for three or four days, and subsides on the appearance of the eruption. In adults just before the appearance of the eruption we have a great tendency to perspiration with drowsiness and sometimes coma, and in children we have convulsions and very little perspiration.

We have given the symptoms of the initial (fever and now pass on to a consideration of the most important characteristics of the second or eruptive stage. At the end of the third day or the beginning of the fourth, the eruption generally makes its appearance in small pimples upon the forehead about the mouth and nose.
and then upon the upper extremities, and afterwards on the lower, and is generally completed in twenty four hours; sometimes though very rarely they appear first on the limbs or trunk. The subsidence of the fever is often rapid and even abrupt.

The first appearance of the pimplles are small red points, then on the second day small elevations with inflamed bases, the cuticle being distended by a semi-transparent galactic lymph. At the close of the second or third day the pustules have a central depresion giving to the eruption a characteristic umbilicated appearance and their umbilicated form continues to increase. On the fourth day they assume a whitish colour and become surrounded with a
pale red areola, which sometimes run into each other and give a continuous red appearance. Between the fifth and seventh days, the change from the serous to the prurulent character of the eruption takes place and marks the commencement of the stage of suppuration.

All that I have hitherto written will apply with some readiness to all of the varieties of this disease. But its severity differs very much in different cases, and the quantity of the eruption indicates the severity of the disease. The number of vesicles indicates the quantity of the wonderful poison which has been reproduced in the blood and is also a direct measure of the extent to which the skin is...
inflamed. While thus studying the complications of the eruption we are forced to the necessity of making two distinct varieties, and for the fullest estimation of which we propose to consider each separately.

In the distinct variety, the secondary fever continues from three to four days and the fluids arrange at their maturative stage about the twelfth day when they begin gradually draining away.

The desquamation commences on the face, and leaves a red papule which gradually disappears, or if the case has been severe deep skin mark the spot where the eruption was located, which is indelible, and the patient is said to be pox-marked.
This is the course which the eruption
presents on the face in the distinct
form where the pustules are even
thicker than on any other part.
In this form the patient is not
considered very dangerous nor is he
so liable to the malignant form.
We come now to consider the
confluent variety which may be
considered a more severe form of
the disease.
The febrile phenomena attending
it is more intense; the pains in the back
and episternities are more severe and the
eruptive fever may be paid to be of
an inflammatory character: though some-
times assuming a typhoid.
We have no tendency to perspirations
but sometimes a profuse diarrhoea.
The eruption appears earlier in this form and is much more irregular in its several phases. These small red papular points which first appear run into each other and form a red stumpy, surfaced. The crustules are irregular in size (shape) and not so much elevated as in the distinct variety. The face and hands become much swollen; there is soreness of jawes and a profuse and acrid (flow of saliva). Not unfrequently the eruppion extends to the larynx and trachea and to the larger divisions of the bronchia producing cough, hoarseness and painfull attempts at expectoration and sometimes completes extinction of the voice.

When the suppurration is complete, the symptoms become aggravated.
and the secondary fever develops itself. The matter in the pustules is of a dark colour, and in some cases highly corrosive in character. Between the eighth and ninth day this matter escapes (from the pustules) and hardens on the surface in a brown crust, these begin to fall off at a period from the fifth to the fifteenth day of their formation.

When this disease commenced as a highly inflammatory affection we are apt to have connected with inflammation of the brain or lungs, and when we have inflammation of the brain the symptoms are delirium, coma, convulsions, and apoplexy. The signs of the thoracic complication are pneumonia, pleurisy, or effusion in
The lungs. The eyes are inflamed and sometimes covered with pus.

When the accompanying fever is typhoid in character we have the usual signs of a typhoid state and the pusules appear slowly and irregularly and sometimes entirely and the suppurative stage proceeds slowly and imperfectly.

The character of the matter in the pusules is thin and watery. We sometimes have the swelling of the face to subside suddenly, and then we are to apprehend death from apoplexy.

Anatomical Characters

In post mortem examinations we generally find congestion of the brain, lungs, and also pusules in the larynx, pharynx, trachea and bronchial tubes.
the appearance of these are modified
by the stage of the disease).
In the appearance of the pustules on
the skin, the pustule has its natural
thickness, exposing a white and smooth
surface elevated at the edge and
depressed in the centre, and instead
of the mucous coat we have a small
umbilicated disk of varied thickness,
and beneath this disk the dermis
is of a red colour, and sometimes
covered with a perscent fluid.
Sometimes we leave after acute traces
of eruption on the prepuce of the male
and the labia of the female; these spots
contain no pus, therefore do not peel
and leave a tear, i few of these spots
have been observed in the aseophageus
(but are very rare).
There are generally some signs of inflammation presented by the alimentary mucous membrane and not unfrequently small elevations exhibit themselves on its surface especially in the large intestines in cases which are attended with diarrhoea or diarrhœa: but these prominences are paid to be nothing more than inflamed and enlarged mucous glands and it is asserted that the true varicelles pustules never prick in the stomach and bowels.

(Prese)

The cause of smallpox is admitted to be a specific contagion by the whole world and is certainly one of the most contagious diseases known. There are very few persons that are not liable to be affected with it when
When exposed to the contagion unless they are protected by vaccination or a previous attack by the disease there are occasionally some few persons who resist the effect of the contagion to old age, but even then such persons are not entirely secure from the disease, for there are instances on record where persons have been subjected to the contagion many times and at last they have died with the disease at an advanced age and in person who have escaped the disease in the natural way, it has been produced by inoculation. The fetus in the womb is liable to be attacked along with the mother, and in some cases they have been known to take the disease when the
The contagious acts either through the air or by contact in the solid or liquid form with the skin or mucous membrane or by insertion under the cuticle. The purulent contents of the pustules, and its dried scales, seem to be most contagious of the products of the diseased body, and it has been said that patients have taken the disease from being bled with a lancet which has been used in a previous case, and not been well cleansed. The opinion is yet unsettled as to what period it is most contagious, some believe it to be so at any period of the disease after the fever has been established, while others think that
it is only contagious after the opera-

tion has commenced. Some have
tried to determine at what distance
the contagion could be communicated
through the atmosphere, though it
is well known that it can be propa-
gated from one chamber to all of the
apartments of a large house or to
neighboring ones.

We simply state that we coincide
with our able friends of practice, in the
belief that it can be communicated
but a short distance.

Treatment

Never perhaps in the annals of history
of medicine has the treatment of a
disease undergone such an important
and beneficial change. And to Sydenham
alone belongs the honor of changing the
medical opinion in this respect.

This was in many other diseases he showed a mind unequalled by any of his day, a mind capable of unraveling the many mistires connected with the diseases of the animal economy and may be said to have been one of the brightest stars that ever shone from the firmament of the medical profession. But his day is past and it would be useless for us to attempt to intelligize upon his once capacious mind. His name is enrolled upon the book of immortality, and will be handed to succeeding generations there to receive the honors and praise ever due to genius and intellect.

The predecessors of Sydenham laboured under the great galaxy of opinion that there was a poison in the body, and that it
was necessary to force it out through the skin, adopting the old maxim that it was better out than in. They therefore adapted the means of driving it out through the eruption. It was known to them that heating and stimulating measures would promote the eruption. They therefore gave stimulants and hot drinks, leaping bed cloths upon the patient and excluding the fresh air. How great must have been the fatality of the disease under such a treatment! For now we know that the greatest danger depends upon the quantity of the exudates. They were impressed with the belief that the consciousness of the eruptions indicated the exit of the noxious matter from the system. Great must have been the efforts of nature given to leave
proceeded in one case for she had
two foes to contend with, namely the
disease and a set of practitioners wholly
unacquainted with the disease.
The latter the more formidable of the two
for while nature in her endeavors to
heal the disease, was making use of
eye effort, they through ignorance
were placing every obstacle in her way,
and certainly they triumphed over her
in many cases.
Sydenham in his works recommended
the beneficial effects of an opposite
treatment, but it was subsequently to the
introduction of the method of inoculation
that the cooling treatment was fairly
established. It is important for us to make
an early diagnosis in this disease as the
object is to prevent if possible a serious
ruption which we may keep down by the rise of saline cathartics, as already
produce two or three stools every day and by free ventilation of the surface of the
body, and if the temperature of the body be very high the skin may be sponged
with tepid water. Some attention should be paid to the apartments of the patient
which should be kept cool and ventilated.
In the Typhoid form of the disease the treat-
ment should be about the same as that for
other Typhoid forms, and if the patient
should be sinking it will be necessary
to resort to the free use of Cordials and
Stimulants. There are many complications that
arise in the course of this disease and the
symptoms should be met and treated
accordingly.