1860

White

On

Varola

by

Saml. J. White

a very creditable Thesis in
every aspect. Well written
& well composed

L. H. Taylor

Variola. Definition

Small Pox is the product; and is productive, of a morbid poison, or miasm, which after a period, develops fever, followed by an eruption on the surface of the body, passing through the stages of pimple, vesicle, pustule, & scab, with the concomitant or succeeding affections: the disease running a determinate course, leaving marks on the seats of eruption, and removing from the constitution the susceptibility of an another attack". Copeland.

I Description, and course, with Varieties, and Complications.

Variola, manifests itself, in various forms, depending upon the susceptibility, or constitution of the individual infected, as also by the dose of the poison received into the system. When the eruption makes its appearance our attention is particularly attracted to it, as it interferes with the due function of an organ, with which the system, is naturally sympathizes, and by its characters we form our diagnosis, prognosis, and even, the proper line of conduct to be pursued in the management of the case.

Variola may assume numerous varieties viz the distinct; cohorent; confluent, with Petichial and without eruption: it may also be wholly confined to the integument; or it may attack the cellular tissue, and mucous membrans, more especially their outlets. With respect to the primary fever, there seems to be a certain relation between it and the eruption, but we shall understand this more clearly, when we come to discuss more minutely, the febrile Stage. In whichever of the above mentioned varieties Variola may present itself, or whatever complications, may exist: it always passes through certain stages, which characterize its course. I purpose dividing them into four viz. First: the period of incubation febrile Stage Second. The febrile Stage. Third. The Eruptive Stage Fourth. The Supurating, or Suppurative Stage. Some authors only recognise three viz First: Incubation Second Maturation Third Decline -

Let us discuss each of these Stages in their order

I The Stage of incubation. Is the period which elapses, from the reception of the poison into the System, either by infection, or contagion,

until the appearance of the primary fever.
There has been considerable difference of opinion
as to the length of this period, but Dr.
Gregory, who has devoted considerable time to this
point, and from large experience fixes the
average period at twelve days, and the extremes
at ten, and fifteen days, but with respect to the
latter part of his statement, most authors,
do not coincide. A concentrated state of the effl-
-luvia: a severe epidemic: great susceptibility
of patient: terror of the disease: a warm, moist
and close conducting medium (Atmosphere) may
shorten the period of incubation, even to four, or
five days: while on the other hand the very reverse
of these: viz a dilute condition of the effluvia,
a mild epidemic: strong constitution, and insuscep-
-tibility of patient: a cold, dry, and invigorating
atmosphere, may prolong it, even to three weeks.
Does the patient upon being infected with the poison
show any symptoms of having contracted it?
In some cases he does, but in others he does not:
sometimes he feels depressed in spirit, and if he
have inhaled a very contaminated atmosphere, he,
may experience a peculiar odour, accompanied, or

immediately followed by slight sickness. ——

II The febrile Stage immediately follows upon the period of incubation, which we have fixed to be on an average twelve days. It is usually ushered in by rigors, accompanied or followed by smart febrile symptoms; especially a hard, and frequent pulse, intense heat and dryness of skin, acute headache, pain in the back, loins, and limbs, nausea, or even vomiting, loss of appetite, and great thirst. After a continuance of these symptoms, more or less for twelve or twenty-four hours, the skin becomes hotter, and not so dry, there is greater thirst, nausea, and more frequent vomiting, great epigastric tenderness, increased on pressure, the face becomes flushed, the eyes suffused, the nostrils stuffed, and there is occasional sneezing. During the course of the second day, the skin becomes more moist; but, without diminution in the quickness of the pulse: the breath, and the cutaneous transpiration, are frequently noticed to have a peculiar odour, described as somewhat musty, and the urine also is scanty, and high coloured, depositing a reddish sediment. In some cases, the headache

is accompanied, in adults, with Stupor or delirium and in Children, with Stupor, or convulsions. Occasionally instead of rigors, and febrile Symptoms, great prostration, a Sensation of Constriction across the chest; laborious respiration, frequent sighing, coldness of the extremities, feeble pulse, usher in the febrile stage, and predict even a more severe attack of the disease. The most characteristic Symptoms of Variola are, vomiting, and pains in the back. When these Symptoms are violent they generally usher in a severe form of the disease, and if, they continue after the eruption has appeared, our attention should be more particularly attracted to them. Aberdeen noticed "that pain in the loins was always followed by a liver disorder; that pain higher up between the shoulders, was of better augury, and that it was to be reckoned in all cases a good sign if there was no pain in the back at all" (Watson) Early delirium, stupor, or convulsions announce severity in the subsequent course of the malady; yet it is always, especially in Children (Watson Vol 2nd page 886) can we pronounce the case one of Variola, upon the

validity of these Symptoms, I think not: but if they be strengthened by the presence of an Epidemic, if the patient have been exposed to the Contagion some, or thirteen days previous, if he have never been vaccinated or had the disease, we are now furnished with such means as to enable us to say with tolerable accuracy that the disease is most probably Variola. ———

III The Eruptive Stage. —

The Eruption generally makes its appearance on the third day of the fever, but in a debilitated Constitution, it may be prolonged to the fourth day, and three days may even elapse before it becomes fully developed over the whole surface of the body. The earlier it comes out, the more unfavourable is our prognosis. After the Eruption comes out, the Constitutional Symptoms are alleviated, the fever abates in the morning especially, but always undergoes more or less exacerbation towards evening. If the Eruption is very copious, or confluent, or if there be some internal Complication the abatement of the fever is less marked. The pulse becomes softer, and more compressible, and falls ten to twelve

beats per minute, the epigastric tenderness dimi-
nishes, or altogether disappears, and the sickness
subsides, and the pain in the head, Lumbar
regions, and limbs become less intense or altogether
cease and the patient if interrogated as to how
he feels, he will express himself as much better. The
eruption is first papular, then vesicular, after-
wards pustular, and lastly desiccative. The minute
papulae or pimples are elevated above the
surface, rather hard, giving the skin a
rough, knotty appearance, and fail. On exam-
ination they are found to be not merely
connected with the surface, but with the cutis
vera. They appear successively on the face,
neck, and wrists, more especially on the sides
of the nose, upper-lip, and chin: then
on the trunk, and lastly on the lower
extremities. If the eruption is rather copious,
the patient upon its first appearance experi-
ences a sensation of tension, and itchiness
more especially about the face. The severity
of the attack varies according to the
quantity of the eruption.

iv The Suppurative or Maturative Stage

About the fifth day of the eruption, it becomes pustular, and on the eighth day the pustules have become fully matured. They then burst and discharge a thin yellowish matter, after which, the pustules dry up, forming scabs, which fall off on the fourteenth or fifteenth day, leaving behind them, a purplish red stain, or a depressed scar. "Nearly one-fifth of the number of the pustules appear on the face," and according to Sydenham, "the danger is in proportion to the number of pustules on the face, those on the other parts of the body hardly influencing the event." This however is not altogether the case, for the danger chiefly arises from the tertiary effects of the poison, or those produced upon vital or internal parts: the secondary effects being the cutaneous eruption. Copeland. The spaces lying between the pustules are of a dusk damask red colour, and the higher they are in colour, the more favourable will be our prognosis. During this stage many patients are tormented with itching of the surface, so that they are provoked to scratch the pustules off the heads of the pustules, and by so doing, they insure the formation of pits."

This itching of the surface is more frequently associated with the confluent-variety, than with the discrete. During the maturative stage, the head and face, especially the eye-lids swell, the latter of which are frequently so oedematous as to prevent the patient from seeing; and the fever, which had remitted returns, and the secondary fever begins. This secondary fever, or fever of maturation consists, of an increased heat of surface, greater frequency of pulse, and perhaps, slight delirium. About the eighth day of the eruption, the intumescence of the face, the secondary fever, and the redness of the intervening spaces, having continued from the fifth day of the eruption subsides. The description I have given is one of a typical case of discrete Variola, but in the more severe cases of this variety the mucous membranes, are affected especially of the eyes, mouth, and throat are affected, causing in the two latter hoarseness, pain; difficulty of swallowing, and even slight salivation for the first and second days of the eruption. This affection consists of either an eruption of vesicles, or pustules about the base of the tongue, and throat, or redness, and swelling of the mucous membrane of the

throat, and even the Larynx. Having now discussed the different stages through which a typical case of Variola passes, allow me to lay before you more briefly, the appearances, and the various changes the discrete eruption undergoes in its development. The eruption runs its course in eleven, or twelve days, and is firstly papular, secondly vesicular, thirdly pustular, and lastly Desiccative. The papular lasts two days, the vesicular four days, the pustular three days, and the desiccative three days. About the termination of the second day, or morning of the third, a small vesicle appears on the summit of each papule, which is depressed in the centre, or umbilicated, and contains a thin, transparent, whey coloured fluid. About the fourth or fifth day of the eruption an inflamed areola forms around the base of each vesicle. Shortly after, the filament of cellular tissue binding down the cuticle, and causing the central depression, or umbilication bursts, and the vesicle becomes pustular, turgid, and semi-Spheroidal. From the fifth, to the eighth day of the eruption the pustules ripen, become yellow, and about the eighth day, a small dark Spot

shows itself on the apex of each pustule, and the distended cuticle giving way, affords escape to the pent-up matter. From the eighth to the eleventh day, a scab is being formed, which desiccates, and falls off about the fourteenth day, leaving a purplish red stain, which gradually disappears, but if the pustule have gone so deep as to cause ulceration of the true skin, pitting is the result. ———

II Variola Confluens. ——

When the vesicles or pustules coalesce, or stick together, but not so closely as to prevent each from being distinguished, they are said to be coherent. This variety is intermediate between Variola Discreta, and Variola Confluens. The pustules do not maturate so perfectly or easily, as in the distinct form, and they cause more swelling, and pain, with more intense fever, and are more likely to produce pitting. Salivation is more frequent in this variety than in the distinct, but not so frequent as in the confluent.

III Variola Confluens.

The Eruptive or Primary Fever is much more severe, and of shorter duration than in the distinct or coherent variety. It is also accompanied with more sickness, and vomiting, with more violent pains in the Lumbar regions, head, and limbs. Delirium, much more frequently attends this variety, and children are often seized with convulsions, more especially the evening previous to the manifestation of the Eruption. The earlier the Eruption appears, the more unfavourable is our prognosis. There is much less abatement of the primary fever, upon the coming out of the Eruption, than in the distinct or coherent variety: the pulse remaining high, the Skin hot, the tongue covered with a white fur, and delirium frequently occurs in the evening, as at this period of the day there is always exacerbation of the fever. Salivation which is rare in the discrete usually attends this variety, at first it is profuse, and thin, but, as the disease advances towards the period of maturation the discharge becomes less copious, inspissated, and ropy, so that the patient experiences considerable difficulty in dislodging it: If the Salivation together with the intumescence of the face suddenly subside, they augur a very unfavourable issue.

Salivation now generally occurs in adults, while in children diarrhoea seems to take its place. The eruption comes out earlier, the papulae being more irregularly distributed, more numerous, and crowded together in patches; it is often accompanied by a rash resembling that of measles or scarlatina, so that it is with difficulty, and even uncertainty, our diagnosis can be made out; but when the eruption becomes vesicular our doubts are at once dispelled. Dr. Watson mentions a case that came under his observation at the Middlesex Hospital, in which the papulae were so intermingled with the appearances, and sensations of urticaria that he doubted for twenty-four hours what the character of the eruption might be. This variety is called confluent, owing to the pustules losing their outline, and flowing into each other, thus forming ulcers, which vary in diameter, from the size of a fourpenny-piece or sixpence to that of a half-crown, or even a crown. The pustules, especially those on the face, do not become so well developed as in the distinct-variety; they are flatter, less plump, more irregularly depressed, and even of a different colour, being first whitish

and then of a brownish tint; and seldom of the yellow purulent hue, which is seen in the Variola Discreta. Sometimes they are seen bluish or purple. (Eichorn)

"During the period of maturation there is developed a peculiar odour, which the practitioner at once recognises upon entering the sick chamber. The secondary fever, or fever of maturation, which comes on during the eighth day of the eruption or seventh of the fever, chiefly characterizes this variety, inasmuch as it hastily increases the severity of the symptoms, and renders the disease much more fatal. Persons in this stage death early occurs except from Anemia, Suppression of urine, Bronchitis &c. the 11th, 14th 17th and 21st are critical days. Dr. Gregory records 168 cases in which 27 deaths occurred on the eighth day of the eruption. 32 died the first week 99 the second, and 21 the third. From these observations, we learn, that three times as many deaths took place during the second week as the first. In very severe cases of this variety, various complications are apt to occur, during the secondary fever, or more advanced stage of the malady. For in

Variola, as in all other Fevers, the Complications are more to be dreaded, than the original disease. The mucous and Pulmonary affections are most fatal. The lungs, and trachea, are found congested, and engorged with blood after death. In haemorrhagic constitutions there may be extravasations into the pleura, and pericardium, and in the intestines the glands of Peyer &c may be affected. Extensive erysipelatous inflammation, is apt to attack the Subcutaneous cellular tissue in different parts of the body, giving rise to abscesses, and other sanguineous. Phlebitis, Purulent deposits in the joints. Suppression of Urine, Haematuria, and Abortion, may occur. If there be an intumescence of the face: if the pustules have a small black speck on their summits, or are partially filled with dark ichorous matter, and if in addition the pustules, have a tendency to become gangrenous, and petechial are interspersed through the intervaces I believe in such cases there is little hope of recovery. But if, perchance, the patient recover from certain of these Complications, by a prolonged, and

and hard fought battle, he is likely to be affected for the remainder of his days, with blindness, from ulceration of the Cornea or Opthalmia, (Ground) with deafness, from Otitis, with lameness, from ulcerations of the cartilages, or purulent deposit in the joints, and to have his features, horribly disfigured from ulceration of the derma.

Inoculation

Is the insertion of a small quantity of virulous matter beneath the cutich. Voltair writing on Inoculation remarks "that the Genals of Circassia, and Georgia, were from time immemorial, in the habit of communicating the Small-Pox, to their Children, at as early an age as Six Months, by making an incision in the arm and by inserting in this incision the contents of a pustule taken from another child." The Brahmins in India are also said to have practised it at a very early period. Its practice was first communicated to the profession in England in 1713 by Dr Emanuel Timonie, in 1715 by Wm Kennedy

and afterwards in 1716 by Dr. Pylarini: but it received no attention until its introduction by Lady Mary Wortley Montagu in 1718. Her attention was directed to it as a prophylactic against Variola, on account of her brothers death, and from the situations, and fears, she experienced, while recovering from the same malady that had carried off her brother (Variola). For a considerable time after its introduction into England by Lady Mary Worthy, was persecuted by all denominations, even the members of the medical profession, who should have been the first to have given it a fair trial, rose up in arms against it, predicting its utter failure and evil consequences: the clergy also commented on it, that it was displacing the order of events, and frustrating the designs of the Almighty and we are told that even the common people hooted at her, as being an unnatural Mother, for having risked the lives of her own children, notwithstanding inoculation day by day gained ground. For four, or five years, after its introduction, Lady Mary Worthy, bitterly repented of her undertaking, owing to the slander, and reproach, that were being continually shaped on her, writing from Adrianople in 1718 she says the small Pox so fatal

and so general amongst us is now entirely Lamb's by the invention of Ingrafting, which is the term they give it. Every year thousands undergo the Operation and the Pleuch Ambassador, says, pleasantly, that they take the Small Pox here by way of diversion, as they take the waters in other Countries. There is no example of anyone who has died in it; and you may believe I am well Satisfied of the Safety of this experiment; since, I intend, to try it, on my dear little Son. I am, patriot Enough, to take pains, to bring this useful invention into Fashion in England!! Her daughter was the first person that was inoculated in England in 1721, then a child of D^r. Keith's, and afterwards, six condemned Criminals in Newgate, who were chased on their Submitting to it, and afterwards the Princess of Wales own daughters Successfully underwent the new Operation, but some time elapsed before it became at all general. Towards the middle of the last century, it was very Successfully practised by the Brothers Sutton. On the twenty-third of July 1840 the Operation of inoculation, the introduction of which, has rendered illustrious the name of Lady Mary Wortley Montagu, was pronounced illegal by the English parliament:

The mortality, from inoculation, is variously stated, by different authors. Lady Mary Wortley's grandson (William Stewart) had a mixed communication of 2.000 persons inoculated, and only three died; an infirm, unhealthy old woman, a man above sixty years old, and a child, who previously, to its being vaccinated, contracted the disease. Dr. Gregory says "the average number of deaths at the inoculation Hospital, was only 3 in 1,000. The National Vaccine Board gives a somewhat higher rate of mortality 1 in 300. I have briefly noticed inoculation, inasmuch as its practice is now illegal, yet there are certain circumstances, under which we are warranted and even right in having recourse to the operation, as when an unprotected person is or has been recently exposed to the contagion of Variola, and there is no Vaccine virus at hand. Professor Gregory was wont to narrate a fact: which very well illustrates its advantages in such cases "The Small Pox was introduced among the crew of a man-of-war in a tropical climate, where no Vaccine virus was to be procured. The men were almost all unprotected. Fifteen of them took the disease in the natural way, nine or more than one-half died

Of 363 who were inoculated under the disadvantages of a hot climate, and no preparation, not one perished

Vaccination

In the County of Gloucester and other Western English Counties, where there are extensive dairies Dr Jenner ascertained that persons affected with the Cow-pox were free from Small Pox. He next ascertained that some milkers, who had sores on their hands were not protected against the contagion of Small Pox, consequently he was led to the conclusion that the udder and teats of Cows were liable to different kinds of eruption. Dr Jenner in tracing the origin of Small Pox found that it was peculiar to certain dairies, and that in those dairies men were employed in milking. On further investigation he learned that the men, who were employed in milking, had also the charge of farm-horses. He next found that the vesicular eruption on the udder, and teats of the Cows appeared at the same period, that a species of suppurative inflammation called the grease affected the heels of the horses. He therefore concluded,

that the disease was communicated to the Cows by the hands of the men engaged in dressing the sore locks of the horses. Dr. Watson, states that the disease, which in the horse corresponds with, and produces the Specific malady of the Cow, is a vesicular eruption, having no necessary connexion with the grease, but extending sometimes all over the body. Some think that Cattle caught it from man, and than from Cattle, but the majority of the profession, are in favour, of the latter view, Dr. Jenner came to the conclusion that Variola, Variola Vaccinae, and Variola Equinae were modifications of each other, and that in giving Cow-pox to man, you were giving him Small-Pox in its mildest form. On the fourteenth of May 1796 matter was taken from the hand of Sarah Nelmes, who had been infected by her masters Cows, and inserted by two superficial incisions into the arms of James Phipps, a healthy boy of eight years old. It went through the disease apparently in a regular, and satisfactory manner. But the most agitating part of the trial still remained to be performed. It was needful to ascertain whether he was secure from the contagion of Small-Pox. This point-so full of anxiety to Dr. Jenner, was fairly put to issue on the first of the following July. Variolous matter immediately

taken from the pustule was carefully inserted by Lancet incisions; but no disease followed" - - - - - - - - -

Is the protective power of vaccination permanent, or merely temporary? - - - - - - - - - - - - - - - - - -

In the majority of cases, its protective power is permanent: According to Dr. Barlow, it affords perfect and permanent security, not to more than two-thirds. In those cases in which persons are said with what is called Variolid disease. Post-vaccinal, or Modified Small-pox the malady is in most cases deprived of its sting, by being curtailed of its Secondary fever. In the 4th Vol and 4th No. page 385 of the "Edinburgh Medical Journal" for 1854 I noticed a short article by Professor Haye in which he says "It is certain that vaccination affords no absolute, but only a temporary protection, which may be reckoned at an average of ten or twelve years for most." For me, to enter fully into the Subject of Vaccination, would be quite out of place, as it affords sufficient material for a Separate thesis. I have merely taken up a few points, by way of introducing two Cases of considerable interest, which I have been enabled to bring before you, through the Kindness of Professor Laycock, under whose Superintendence they were treated in the Royal Infirmary during the past winter Session of 1858-9.

Alexander Gollan, aet. 25 A Gardiner, unmarried, from Inverness. Admitted November, 30th, having been ill four days previously. ——

—— History ——

The patient has led a healthy life, with the exception of an attack of Scarlet Fever, when he was twelve years of age, and he has been temperate, in his habits. On Friday, the 26th, ultimo the patient felt slightly unwell, and complained of giddiness, but notwithstanding, went through his days work. On Saturday morning, the 27th, he felt very ill with sudden alternations of heat and cold, and a pain across his forehead. He felt no better on Saturday, and could not keep his bed, from restlessness. On Saturday, (Sunday) night he observed a slight eruption on his right arm, was unable to sleep, felt very hot and inclined to vomit. On Monday morning, the eruption increased, as did the febrile symptoms so that the patient remained in bed all day. On tuesday, he was seen by a medical man, by whom he was recommended to this hospital. ——

Symptoms on Admission ——

Patient looks very feverish. Marked papular eruption appears over his whole surface person, most abundant on his face, and forearms, and covered over with

white pustules, and the left tonsil with the corresponding side of the uvula presents the same by Professor Laycock, a slough. His pulse is 120. Other Systems normal. —

Friday, 2d The pustules have maturated, and on the forehead, and temples, have become confluent. Ordered to have

℞, Potassae Chloratis, ℥ij.
Liquor. Ferri Mur, ℥ij
Mist. Camph, ad ℥iv
℥vi

Two tablespoonfuls every third hour
He is also ordered a Camin pack for his throat.

Saturday, 3rd The pustules have a depressed umbilicated centre. Some of them have discharged their purulent contents, and their crusts are Scaling off

Monday 5th This is the ninth day of the Eruption, and Eleventh of the fever. Patient feels much better

Dismissed Convalescent. Dec. 9th

Reported by Mr. Stark C.C
Ward No. I South Side

Case No. 2 Charles Mc. Donald, Engine Driver, a native of Banffshire, residing at Locks Lodge, Admitted into the Medical wards of the Royal Infirmary Nov. 2d. 1859

History

States, that he generally has enjoyed good health. A fortnight the little toe of his right foot was bruised about ten months ago, subsequently to which he exposed himself to venereal contagion His little toe, not having healed, he entered the Surgical Hospital under Dr. Gillespie in April last: His toe, was amputated ten days, after he entered. After he had been in the Hospital, for about three weeks, he noticed a sore on the inside of his right thigh. At length the Hospital at the end of ten weeks. But before leaving he noticed a slight eruption over his face and back The sore (resulting from the amputation) of his toe, had not healed, at this time. He went home, took to bed in consequence of a failing of uneasiness over his whole body, an increase in the eruption, and a soreness of the joints. While at home he was under the care of Dr. Balfour, who pronounced his case one of Small-Pox. The eruption decreased; But his right eye becoming sore, he came again into the Infirmary under the care of Mr. Walker. He stayed there until his eye was healed. Was then admitted into

Dr. Gillespie's wards for an ulcer on his foot and thigh, he stayed there for about Six weeks, then went home, the sore on his thigh and foot still being unhealed, and the Eruption still continuing. He caught cold in his right Eye, the one previously affected, for which he was admitted into the hospital under Mr. Walker for the Second time. Got his Eye cured or relieved, Again came under Dr. Gillespie. went home. was admitted again into hospital under Mr Poser Miller the 2nd Nov. under whose care the Eruption in great part disappeared. A push Eruption came out the 28th Nov. Last him the Same day by Mr. Miller

Symptoms on Admission —

He has been vomiting, accompanied by hiccough, the first of which he has had for four days before admission

Integumentary System

His whole body is covered with a bright red, papular Eruption, and here, and there, about his legs Specially, are seen some Scabs. His face is of a livid red Colour. feels hard to the touch, and is thickly covered with papules of the Same colour which are Specially numerous about his nose, over his Chin, and about

his Eye-brows. The papules are not quite so large, nor is the Skin reddened between them over the Chest. They are comparatively thinly scattered over the Abdomen, the Skin being of a nearly normal character. Round his Shoulders and down his legs back they are numerous. Down his legs they are scattered thickly. Some of them having Scabs on their Summits. Here, and there, are some patches, of a light red colour, about the Size of a Fourpenny-piece which are slightly raised above the Surrounding Skin, the redness partially disappearing on pressure The Sore resulting from the amputation of his little toe has an offensive odour. The arms have much the same characters as the legs, being thickly covered with papules, and the Skin between them being of a normal colour His Eyes are suffused, reddish: the pupil of the right being much smaller than the left. His face has a dull, stupid look.

Respiratory System — normal ——

Circulatory System

Pulse rapid, but Full. Heart's action much increased in quickness, but regular in Rhythm ——

Genito - Urinary System

Urine, of a reddish colour, which is seen under the microscope to be owing to the blood mingled with it.

Digestive System

Tongue furred. Stools normal. Has vomiting, which he had for four days before he came here.

Progress of the Case.

About eleven o'clock, of the night of the 8th, he had a severe attack of vomiting accompanied with hiccough, and much prostration, Ordered by Dr. Stewart a Sedlitz powder to be taken immediately. Had no effect in stopping vomiting or hiccough. Ordered ℞

Acet Calp ℥ss
Acidi Hydrocyan dil, Minim iv
Aquae, ad ℥ii

Misce

Two tablespoonfuls to be taken when required. This stopped both the vomiting, and hiccough.

Nov. 24th Seen by Dr. Laycock and ordered by him to be wrapped up in a blanket wrung out of hot water _____

Nov. 30th. He was very restless during the night - picking the bed clothes off, and muttering. His urine to-day is of a dark blood colour. There are a few pustules, observed on his legs, mingled with papules, Ordered by Mr Post Laycock to be dry cupped over the kidneys, and to take wine. To take the following immediately R, Liq. Ammon. Acet. 3ii
He is in a very low state

Dec. 1st. Has not been cupped. Refused to take the wine: was very restless, and threw himself out of bed during the preceding night. Became comatose at ten o'clock a.m. to-day. Several of the papules have now become pustules. Has all the external characters of a case of confluent Small-Pox The fluid he has micturated is nearly pure blood. Continued comatose till four o'clock p.m. and then died after a slight convulsion

Sectio - Cadaveris 45 hours after death
— External Appearances —

Face, trunk, and extremities, pretty thickly covered with imperfectly matured pustules of Variola Several purpuric spots were noticed especially

on the arms, in addition to extensive post-mortem lividity of the neck, and back. On removing the integument of the chest, blood was found extravasated into the substance of the left Pectoralis major muscle in the situation of the second, and third costal cartil-ages

Thorax

Heart moderately distended with dark loosely coagulated blood. a few small petichial patches, were observed below the pericardium. The heart was normal in situation. There were several very dense adhesions of the right Pleura, this lung was highly congested There were no adhesions of the left Pleura, and the left lung was natural, and but little congested

Abdomen

Stomach Intestines and Liver natural. Splen, of a moderate size from its texture. On section it was found congested, and partly thickly studded with Opaque Calcareous bodies of rather large size.

On Microscopic Examination

nothing abnormal was detected. The urinary Bladder was moderately distended with fluid, which consisted

of nearly pure blood: the mucous membrane, as also the substance of the bladder, with the prostate, were quite healthy. On examining the surface of the kidney, a few very small petechiæ were observed. On section the pelvis, and calices of the organ were found filled with loosely coagulated dark blood. There appeared to be no abrasion of the lining membrane of the pelvis, and the substance of the gland seemed quite natural On microscopic examination blood was found in a few of the convoluted tubes of the cortical substance, but otherwise, the structure of the gland, was natural Some of the deep inguinal glands were enlarged and when cut into were found to contain yellowish matter of soft consistence -

Reported by Dr. Colville Brown C.C.
Ward No 2 West-Side.

There is no notice taken in the report of the patient having been vaccinated when a child I remember distinctly examining him as to his being vaccinated or not and the nurse also on being interrogated says "that the gentlemen asking both himself and his friends, all of whom replied in the affirmative. This case is one of considerable interest owing to the fact that he had two attacks of variola within a

period of seven months and those subsequent upon Vaccination
I called on Dr. Balfour who kindly gave me the following
particulars of his first attack He stated that the Eruption
came out very irregularly and that very few of the papules
reached the pustular stage – in fact the Eruption became
abortive

Samuel G. White