

History of a case of paraplegia from injury of the spinal chord, causing inertia of the kidneys, and other anomalous symptoms / by John Home Peebles.

Contributors

Peebles, John Home, -1867.
Royal College of Physicians of Edinburgh

Publication/Creation

[Edinburgh] : printed by J. Stark, [1834?]

Persistent URL

<https://wellcomecollection.org/works/dh399m4q>

Provider

Royal College of Physicians Edinburgh

License and attribution

This material has been provided by This material has been provided by the Royal College of Physicians of Edinburgh. The original may be consulted at the Royal College of Physicians of Edinburgh. where the originals may be consulted.

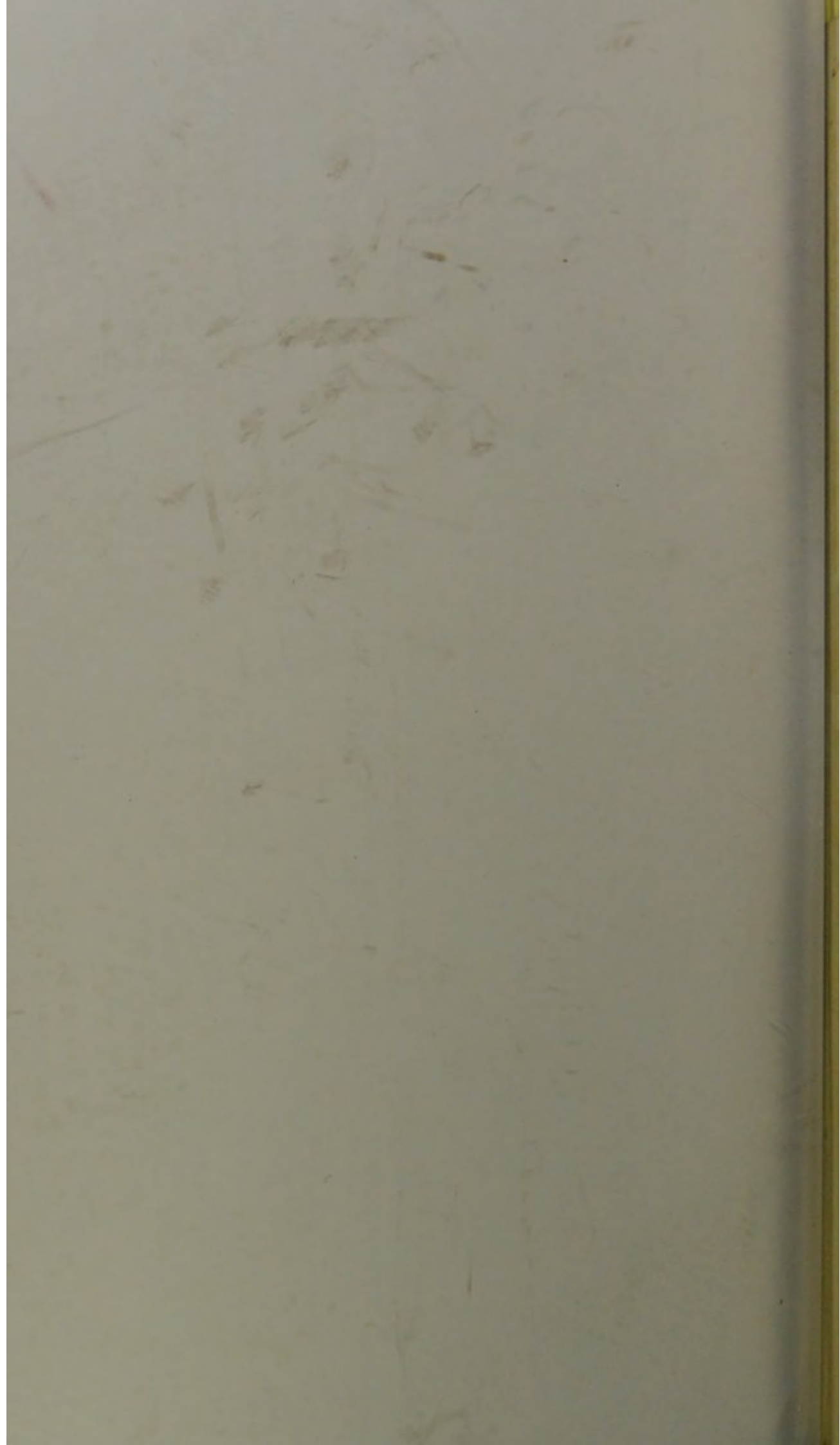
This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>





J. F. Macfarlane Esq
with Dr Peebles, best regards

HISTORY

OF A

CASE OF PARAPLEGIA

*From injury of the Spinal Chord, causing Inertia of the
Kidneys, and other anomalous symptoms.*

By JOHN HOME PEEBLES, M. D.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, EDINBURGH.

(From the *Edin. Med. and Surg. Journal*, No. 121.)

THE history of the following remarkable case has already been given to the public by Dr Montesanto of Padua, in the 47th Volume of the *Annali Universali di Medicina*, published at Milan by Dr Omodei. It was previously read before the Royal Academy of Padua at its sitting of the 17th of June 1828, and continuations of the history were communicated to the same Institution on the 19th of April 1831, and again on the 9th of July last year. The whole has been published in the form of a pamphlet, which has been extensively circulated, and Dr Montesanto has done me the favour to send me a copy of it, from which I have gathered the greater part of the interesting information I now lay before the Society. *

From that narrative it appears that the patient Domenico Valetto, then in his 18th year, fell accidentally from the third story of a house,—a height of about fifty feet. By this fall he did not receive any fracture, or lesion of the surface of the body; but blood suddenly flowed in great quantity from the mouth, nostrils, and ears. Severe pain immediately followed across the lower part of the abdomen, over the loins, and along the whole of the vertebral column, rendering the man immovable, and showing at the moment the effects of an internal general concussion. Medical aid was instantly procured, and after the use of suitable remedies, he could in no very long time resume the exercise of his trade, which was a distiller of spirits. But his health was never completely re-established, and he always complained after this severe accident,

1. Of pain in the lower part of the abdomen and in the back.
2. Of a difficulty of bending the body.
3. Of an impediment in the passage of the food, which occasioned a weight in the stomach, and something like a knot in the throat. This weight and swelling sometimes disappeared, and were sometimes followed by vomiting of aliment.

Read before the ^A Medico-Chirurg. Soc.

4. He complained also of costiveness, and the feculent matter was generally covered with whitish mucus mixed with streaks of blood.

Lastly, of a deficiency of urine, which always deposited a sediment.

He did not, however, take particular notice of these disorders, but continued to occupy himself with his affairs. He lived a very irregular life with his companions, although he could never take much exercise on account of a difficulty of breathing, which was produced by more than ordinary exertion, and the quantity of urine becoming at the same time scarcer.

In this imperfect state of health and licentious mode of living he spent about two years, when he was drawn into the commission of crime on the highway, for which he was arrested, and committed to the Prison at Padua.

Many months elapsed without his uttering any complaint about his sufferings; but after two years of detention his disorders increased so severely, that he was at last forced to call for assistance. He was now attacked with acute fever, severe pains in the lower part of the abdomen, chest and back. He had aversion to food, and nausea often followed by vomiting. In this state he was placed in the infirmary of the prison on the 10th of March 1819, when he was treated by general and local bleeding, fomentations, injections, and purgatives, and, in short, by every means calculated to remove the symptoms.

The fever was thus in a short time overcome; the pain was rendered milder; but the costiveness, sense of weight in the stomach, in the loins, and lower part of the abdomen, the nausea and vomiting after eating remained constant. The use of such means were continued as his situation would allow; but nothing availed in ameliorating the morbid state, which, on the contrary, increased by degrees, with complete paralysis of the inferior part of the body, and the patient became deprived of all sense of feeling from the waist to the feet, and entirely of any power of movement of the lower extremities. The bowels remained closed, and there was no secretion of urine. He, however, now began to have a good appetite, and could eat every kind of food, except boiled meat and broth, which he refused, as also wine. Always after dinner he drank much water; he then remained well for several hours, when he began to feel a desire for more liquid, to assist in freeing himself by vomiting of the troublesome sensations which the food now occasioned, and which was very soon rejected.

It was observed that this vomiting after dinner happened daily; but after a period of 30 or 40 days, and sometimes longer, vomiting occurred of another kind, preceded by the following phenomena. He began to experience in the stomach a move-

ment similar to that produced by a ball ascending towards the fauces. He was seized with hiccough, which lasted about four hours; vomiting then ensued; gross fecal matter mixed with blood was rejected; and after the alimentary canal was thus unloaded, the hiccough ceased, and the stomach became settled.

His sleep at this time was observed to be of short duration, but tranquil; the pulse sufficiently vigorous and regular; sweating never occurred in the hottest weather. The heat of surface was always natural, and nutrition sufficient all over the body, the lower extremities excepted, which became somewhat wasted, and totally immoveable and incapable, without aid, of any flexion.

The ancles became so stiff that they could not be moved, and the feet so permanently extended in a tetanic form, that the toes were in a direct line with the tibia. He became unable to lie supine, or to raise himself on the trunk, or to turn on his sides. Behind or before he was supported by pillows, which he adjusted as he pleased when he wished to sleep for some hours. Although he was aware that the Tribunal had condemned him and his companions from 1821 to perpetual confinement, he preserved his spirits cheerful and tranquil.

The above account of the state of this patient's disorder was communicated by Dr Menato, Physician to the prison, to Dr Montesanto, on the retirement of the former to fill another appointment. He then requested Dr Montesanto to visit the invalid along with him. At this time he had been about eight years under the care of Dr Menato in the state already mentioned.

He was now carefully examined. The pulse was found to be 60 and regular, as well at the wrist as at the groin, ham, ancles, and elsewhere: but the tone of the arteries was rather resistant, which, with an oppression of breathing, indicated a necessity for bleeding, as at other times during the last three years. The heat of the body examined by the Centigrade thermometer was that of a healthy person, and it was equally diffused. His aspect was not cast down, the tongue was clean, and the abdomen was free from tenderness or pain on pressure; the muscles were, however, somewhat contracted and very resistant at the epigastrium. The vertebral column was examined with great attention. There was not the least alteration observed in its external form; but pain was occasioned by pressing very gently on the part which corresponds with the spinous processes of the last dorsal and first lumbar vertebræ,—a point where the patient said he felt a constant internal, though not acute pain, and where he was conscious of a hindrance to the free movements of the trunk; beyond this part the spine was

not painful. From the region of the last lumbar *vertebra* every sense of feeling had ceased. This absolute insensibility was proved by many decisive means to be manifest in all parts which are included in a line drawn from the last lumbar *vertebra*, and stretching along exactly by the right and left superior brims of the pelvis to a little above the *pubes*, and thence down to the feet.

It is here to be remarked, that though the site of the injury of the spine and the chord be, as already stated, at the last dorsal and first lumbar *vertebræ*, yet the loss of sensation, owing to the oblique course of the nerves issuing from the spinal chord, is much lower than the part of the spine injured.

The result of these observations often repeated is the conviction that the disease originated from an injury of the vertebral column, producing morbid changes in the spinal marrow and its investments, and the branches of nerves which arise from it. This disease began to give the first indication of its existence soon after the fall in 1816,—maintained a mild character for upwards of three years, and in 1819 assumed in the prison the form of acute *myelitis*. Paralysis of the inferior half of the body followed, with total suppression of any discharge by the rectum or urethra. The progress of these symptoms has already been described, and the disease does not appear to have presented any difference in its character from the time Dr Montesanto examined the patient, till the end of August 1828, when, after more than sixty days had elapsed without stercoraceous vomiting, Valetto suffered extraordinary distress. During three successive days in the beginning of September, this vomiting was renewed, and again on the 11th and 17th.

Febrile symptoms now appeared, and it was necessary to have recourse to blood-letting on the 24th. Next day he had vomiting of the same nature in large masses mixed with bloody matter. On the 26th the patient had still fever, and was much enfeebled. On the 15th of November following the fecal vomiting appeared again, and once more on the 5th of March 1829. In all these evacuations no urinous smell could be perceived, nor did the body of the invalid give any odour of this kind. To this particular attention was paid, in consequence of the experiments of Mayer on the extirpation of the kidneys.

After the cessation of the stercoraceous vomiting, the daily vomiting of food returned as usual, but it is remarkable that at present it happens sooner than formerly, that is, about two hours after eating, and the substances swallowed are returned much in the same state, and little or nothing diminished in weight, as proved by apposite examinations made in August of the year following.

The order of the phenomena presented in the disease was

not materially altered by this change, except that plethora was now produced with greater facility and frequency, requiring the use of bleeding in shorter periods; and it appears from the journal of the prison, as well as that kept by Dr Montesanto, that during the two years after the cessation of the fecal vomiting, there were not fewer than sixty blood-lettings of twelve ounces each at least.

It is here observed, that, from the hardness and frequency of the pulse, the fever, the wandering pains in the thorax, and the oppression and shortness of breathing which he suffered from time to time, hydrothorax would in all probability have occurred, had not repeated blood-letting, general and local, and blistering, been resorted to.

It is of importance also to mention, that when the vomiting of fecal matter had become more rare, or when it was supposed to have ceased altogether, and when the symptoms of manifest inflammation of the chest arose, with fever and pains in various parts of the thorax, some *sweating* began to appear; an excretion which never happened before, not even in the hottest months of summer. This sweating, or more frequently a sensible perspiration, was discovered to exist, not only in the superior part of the trunk, arms, and hands, but also on the paralytic limbs, and these parts have in progress of time since become less emaciated. Notwithstanding this circumstance the paralytic condition of the inferior extremities is not changed, since the patient has always still a want of feeling and motion from the waist to the feet; and the organs of generation are comprehended in this space.

From the middle of July to the end of August 1831, the general health of our patient was comparatively in the best possible state; but about the first of September he had renewed attacks, and on the 11th of that month it was necessary to use blood-letting, which was repeated twice before the middle of October. Besides these occasional attacks of inflammation of the chest, which required bleeding, he was twice seized with indigestion from eating food which disagreed with his stomach. The last of these, which occurred at the end of March 1832, continued 15 days, during which time he had sharp and constant pains in the stomach and *spina dorsalis*. His pulse was quick, the fever intense, and there was no appetite. A bleeding of twelve ounces was prescribed and again repeated. The pain and fever were mitigated by the 3d of April; but they still continued in a considerable degree, and the patient talked of his approaching end; saying, he felt something rise from the bottom of his stomach, which in every attempt to vomit threatened him with suffocation. Every thing he tried to swallow increased his sufferings; spirits alone in small doses were at this time

tolerated with a sense of relief. Nothing solid was retained on his stomach for 15 days, when, on the 11th of April, a spontaneous and unexpected vomiting took place of four masses of considerable size of matter purely fecal. One of these presented, more strongly than the others, certain impressions on the surface, which showed that these bodies had been formerly retained for a long time within an intestinal sac.

Besides such a solid and homogeneous matter, there was also discharged on this occasion a liquid substance of a greenish colour, and slightly odorous. A little after the fever was very mild, he was very tranquil, with the pulse weak, quick, and contracted; and in two days after he seemed to be restored to his former state. Thus were fecal materials brought away which had been formed gradually in the course of three years, that is, since the 5th of March 1829.

From this time nothing happened to change the usual mode of life. On the 16th of April 1833, he was reported to be "of good colour, of a cheerful aspect, and vigorous, well nourished, never better in health, and no return of fecal vomiting now for a year." He was bled on the 5th of this month for simple plethora, and again on the 14th and 17th of May, to lessen the turgescence of the blood-vessels. His continual actual condition, whether of strength or nutrition, is not very different from what has been described; and in this manner has now gone on for nearly 15 years, the course of a malady which, with its singular phenomena, is arrived at that state as to create a new mode of existence, and entirely peculiar to the individual.

It is difficult to comprehend how assimilation is effected, at least how those materials can be absorbed and circulated innocently in the blood, which all the elementary substances more or less contain, when we consider that the patient cannot take broth or boiled meat, but only salted-meat, dried salt-fish; cheese, and such like food. It is unnecessary to say that such substances cannot undergo the process of digestion during the very short time they remain in the patient's stomach, as he only eats once in the 24 hours.

The quantity of water which the patient consumes before the daily vomiting is upwards of 40 ounces, and must very much accelerate the exit from the stomach of that matter, which it might in vain try otherwise to get rid of.

I had an opportunity of seeing this interesting case when on a visit to Padua in the month of May 1829. At the request of Dr Montesanto, I accompanied him to the prison to examine the patient, and I find from my journal the following account of my visit.

The patient was placed in the Infirmary of the prison along with several sick prisoners.

Here I was informed they are so strictly guarded, that the jailer is never absent from the adjoining room through which we passed to the hospital, and nobody is allowed to visit them except the physician and surgeon, unless under particular circumstances, when an order from the governor is necessary. I was surprised when Dr Montesanto pointed out the unfortunate man at the upper part of the ward; for his appearance was so healthy that I should rather have fixed upon any of the other prisoners to be the person. He was sitting in bed preparing lint for the use of the hospital. His colour was rather paler than usual, which might well have been occasioned by the long confinement alone. His face was full, and his arms and body were also well covered with flesh; but the legs were considerably emaciated. The toes presented a singularly contracted and shrivelled appearance; and the feet were stretched out quite stiff, on a line nearly with the *tibiæ*, as if by violent spasms, and the heels were drawn upwards towards the back of the legs. The heat of the inferior extremities, however, and their colour were quite natural, but he declared he had not the least sense of touch, or any pain in them, nor the smallest ability to move them. This want of all feeling I traced along a line drawn from the lower lumbar vertebra across on each side to the spine of the ilium, extending downwards to a little above the *pubes*. All above this line the sense of touch was natural. I examined the spine, but found nothing deserving notice along the whole column, except at the part mentioned by Dr Montesanto, as near as possible at the under portion of the last dorsal and first lumbar vertebræ. Here there is an indentation or hollow place even visible to the eye, but very distinct on pressing the point of the finger into it, which gave him great pain. On his attempting to bend the trunk forward so much pain was produced in the back and epigastric region, that he was obliged to desist; and on endeavouring to lie down, he complained of so great oppression across the chest with difficulty of breathing, that he was forced to raise himself to that position, in which he has now been for ten years past.

I have already remarked that he is in nearly the sitting posture. In this way he always sleeps supported by pillows; his sleep seldom continues above two or three hours, and it is often disturbed.

The abdomen was somewhat full below the *umbilicus*; but it was soft and compressible, and there was no irregularity of surface, or hardness, or pain, on pressure in any part. The

tongue was almost natural, only slightly furred; his breathing was quite natural. The pulse at my first visit 86, rather intermitting, but neither full nor contracted. Next day I found it 65, steady, and soft. This, Dr Montesanto said, was his usual pulse.

I was informed that he had been, and still is, in the habit of vomiting his food about four hours after eating daily, and every 30 or 40 days he is attacked with severe vomiting of the contents of the stomach and alimentary canal, mixed with feces tinged with blood. Before the vomiting comes on he complains of being sick, very uneasy in the stomach, with a rumbling noise within, which terminates in vomiting. What he vomits is, he says, the food very little changed; sometimes the rejected materials are rather bitter to the taste, but not the least acid. The jailer informed me he perceived sometimes the smell of urine in the matter vomited, but not of late. After vomiting, all the uneasy sensations immediately cease, and he is then quite relieved till next day. His thirst is often great, and he drinks commonly toast-water or lemonade. He says he has felt of late much weaker, but in other respects he is much in the same state as he has been for the last ten years. During the whole of this time I was told he had neither evacuation by the rectum nor urethra. He avoids wine altogether, as he finds it always occasion uneasiness in the stomach. His food is generally such as is allowed by the rules of the prison; but he lives chiefly on salted provisions, which he prefers to every other nourishment. The mind of the patient seems to be quite resigned, and he says he is free from every kind of suffering.

On my return to Padua early in May 1831, I again visited this patient. I found him in the same condition and position in which I saw him two years before. The state of the lower extremities was precisely the same, and I was informed that the other symptoms were not the least changed from what they have now been for twelve years, except that the fecal vomiting is less frequent, and the daily vomiting returns at shorter periods after eating.

When the history of this singular case was published, it excited much interest among the most eminent physicians in Italy and elsewhere, so that some of the professors not only discussed the subject in their lectures, but also introduced it into the medical journals; and many practitioners, both of the neighbouring provinces, and of foreign states, came on purpose to visit the patient. Among these were some who confessed that they had entertained doubts as to the accuracy of the

statements; because, among the long series of facts recorded by medical observers, there were not any to be found that in any respect resembled this case. The legal authorities also requested to be informed of the precise nature of the facts which had been published concerning a man who had rendered himself by his crimes deserving the rigor of the laws. In consequence, a letter, dated the 18th of July 1829, of which the following is a translation, was written by Dr Montesanto, to the Count Selvatico, Vice-President of the Tribunal of Appeal, and Director of the Provincial Tribunal of Padua.

“ Agreeably to the demand which your Excellency has done me the honour to make, I present to you along with this letter, the history of the very singular disease of the unfortunate Domenico Valetto, now confined in the Infirmary of the Prison; a history drawn up by me, and published for the purpose of informing professional men, of the circumstances of a pathological case, no example of which, so far as I know, is to be found in the most accredited collection of medical observations.

“ This man, besides having the inferior part of the body paralytic from the waist downwards, has had neither intestinal evacuations nor urinary secretion for about ten years, during which time he has always lain as he does still, continually deprived of every motion of the inferior extremities, in bed in the infirmary. Vomiting in certain determinate hours after his daily meal, in this man, invariably takes place, of every other evacuation, without depriving him, however, of as much as is necessary for the support of life; and it so happens that this exists in him under laws unusual to human organization, and such as to reveal in a greater degree the wonderful resources of nature, even amidst the most difficult circumstances.

“ The history of Valetto is therefore most interesting in itself, for which reason, with permission of your Excellency, and with the concurrence of Dr Celega, the ordinary physician to the prison, I continue to observe the course of the malady, on purpose that I may be able to give the best account of what is taking place in its progress. But although this person may be treated in the Infirmary of the Prison, like all the other prisoners, with every kind of charity, and on account of the extraordinary length of his malady, he may be regarded even with particular humanity; yet, since the peculiar circumstances of the place render it impracticable for the physician to make those accurate observations, which science demands in a case so important, and so capable of affording in its progress new views to the cultivator of physiological science, I would solicit

that this man, who has been already so many years confined to bed without the power of moving, should, by superior orders, be transported to the Civil Hospital, of which I hold the place of director, and where the observations undertaken by me would be rendered more easy and more conducive to scientific purposes. This request, urged solely for the benefit of the art which I profess, is founded entirely on a knowledge of the facts which I have stated, and by your having it granted, you would do an act worthy a magistrate so respectable, and so enlightened as your Excellency."

Although the condition of the prisoner was not changed by this letter, nor was there greater convenience afforded thereby for observing the patient in the manner a medical inquirer would deem fit, yet it had the effect of putting a stop to the oft-repeated threat of subjecting him to the punishment of the pillory, to which he had been condemned, and from which some ill informed persons pretended to say he wished to escape under the pretext of exaggerated maladies.

Having written to Sir William Money, British Consul-General for the states of Lombardy, to procure farther information about the actual state of the patient, I received his reply, dated Venice, 24th January last. The following is an extract.

"When I was at Padua last month, in my way from Milan, I had an interview with Dr Montesanto, and communicated to him all you wished, and all the interest excited by the marvellous case of the poor and wretched paralytic in the infirmary of the prison at Padua. He is still alive, but has been attacked with fever, which it was then expected would soon end his miserable days; but he still lives. I have since I was at Padua received your letter of the 5th ult. which inclosed your's to Dr Montesanto, which I immediately forwarded to him. I spoke to him about the removal of the patient to the public hospital; but he said it could not be permitted, and that he was satisfied he was as well off in the hospital of the prison as he could be elsewhere. For myself I am thoroughly convinced that there is no deception whatever, and that deception under the circumstances in which the patient is placed is impossible. I therefore firmly believe in Dr Montesanto's statement of this wonderful case.

"I have received a letter from him with two copies of his publication, which I embrace the first opportunity of forwarding to you."

Dr Montesanto's letter alluded to is dated Padua the 12th of last January, and brings the latest intelligence of the patient.

"The pamphlets," he says, "which accompany this letter contain the history of the singular disease, concerning which His Britannic Majesty's Consul-General has done me the honour to request the exact particulars. The history has been communicated by me to my colleagues of the Royal Academy of Padua, the place where the individual lives who is the subject of my observations. Several of them have become personally acquainted with the reality of what I have stated in this history with every possible accuracy. Many eminent Italian and foreign physicians have alone and along with me visited and examined the patient, and I have undertaken to give to the public this account as minutely as possible, in order that every one who wished to do so may satisfy themselves of the accuracy of the extraordinary facts herein related. This is yet possible, as the patient is still alive." (Here Dr Montesanto gives the symptoms as already described, which need not therefore be repeated.) He then proceeds, "it is now about 21 months since he has brought up any fecal matter. For several days unusual pains of the belly, with swelling of the hypochondrium, and great tension had threatened new danger; but bleeding and emollient applications to the abdomen soon brought matters back to their usual state.

"The patient is, however, more deteriorated, and the pain he continually complains of in the *spina dorsalis*, where the *paraplegia* has its origin, is more acute than usual.

"Having observed the progress of this malady with attention for many years, and being anxious to keep an exact account of the disease, and what may be the result of the *post mortem* examination, that I may particularly inform men of science through the medium of the public medical journals, I shall likewise have the honour of transmitting farther information to any medical Institution, as I have already done to the Royal Academy of Paris."

This Academy at its sitting of the 26th of February 1833 had a discussion on a report drawn up at the desire of this Institution by M. Ollivier, which is alluded to in several of the Paris journals at the time, (in the *Journal Universel et Hebdomadaire de Medecine* of March, the *Revue Medicale* of the same month, and the *Archives de Medecine* of the preceding February.)

M. Ollivier mentioned that a similar fact was communicated to him by M. Denis of Commercy, in the case of a man who had received an injury on the spine, when only a few years old, which produced from that time a *paraplegia* with total suppression of both alvine and urinary secretions, and that the patient lived in that state 72 years. Although we should

not hesitate in admitting the correctness of this statement by M. Denis, after the authenticated account of the case before us, yet it is to be regretted that such singular symptoms had not been communicated to other members of the profession, so as to have been made the subject of observation among them during the patient's life.

In presenting the history of the foregoing case in as short a form as the protracted nature of the phenomena would permit, I have been anxious to substantiate the facts therein related by evidence as satisfactory as the circumstances of the patient would allow. To the authenticity of several of the facts of the case I can myself bear testimony from personal examination of the patient. Thus, I can vouch for the truth of the statements regarding the indentation in the space between the twelfth dorsal and first lumbar *vertebræ*, the anaesthetic state of the integuments below the line specified, the paralytic state of the lower extremities, and their shrunk and atrophied condition below the seat of the spinal injury, and the immoveably incurvated or inflected state of the toes.

The statements, that the patient has periodical fits of vomiting, preceded by a sense of obstruction in the throat; that the contents of the bowels are never evacuated; and that the urine has been entirely suppressed for so long a period, with the urinous odour of the matters rejected by vomiting, I should wish to rest on the observation of the jailer, and Drs Menato and Montesanto, who have observed the patient with much vigilance and assiduity.

I may remark, nevertheless, that when we reflect on the position of the patient, which must render almost impracticable any deception for so long a period; and, on the other hand, the serious responsibility of the attendants in such circumstances under an Austrian government, we must unite with Sir William Money in thinking that any attempt to impose in this case must be quite impossible.

Besides, the truth of Dr Montesanto's Reports to the Royal Academy of Padua has never been doubted by the members of that Institution, many of whom, individuals of intelligence and science, have frequently examined the patient. Nor have even the local authorities called in question the accuracy of these facts, which have been unreservedly laid before them.

In closing this communication, I should now make some observations on the singular phenomena here presented to our notice; but the length to which this paper has already unavoidably extended will oblige me to postpone any remarks to another time, when I hope I shall be able to lay further particulars of the case before the Society.



