

thumb, the palms of the hands, and the soles of the feet; the feet are drawn up, flexed, rigid, and contracted, so that he appears to have talipes equinus; the calves of the legs are hard, cord-like, and painful on pressure; the muscles of the thighs are also somewhat contracted and rigid. On examining the spine, percussion over the cervical region produced no effect whatever, but on approaching the fifth dorsal vertebra, the patient cried out as if in great pain, and the legs, feet, and thighs were spasmodically contracted. On descending towards the lumbar region, the contractions and pain were greatly aggravated; the patient referred nearly the whole of the pain to the inferior extremities, the shocks being but slightly felt in the spine itself, and not at all in the head and upper extremities, nor were the muscles of the trunk affected in the least. The respiration is natural; the lungs and heart appear to be quite healthy; the pulse is firm, resisting, and 90; the tongue is slightly furred; there is no thirst, nor nausea, nor vomiting, nor tenderness on pressure over the abdomen; the bowels are regular; the urine is passed freely, and is natural in colour and quantity. The patient states that he has not received any injury to the spine, nor has he been exposed to cold, nor is he aware of any circumstances likely to have induced the attack.

Ordered thirty leeches to the spine, and afterwards four small blisters, two to be placed above, and two below, where the leeches were applied. To have ice applied over the spine. Low diet.

About an hour and a half after the application of the leeches, the pain in the head gradually abated, the contraction and rigidity of the extremities was almost removed, but the pain and formication in the thumb and soles of the feet continued.

22nd. The patient expresses himself greatly improved; he still complains of the heat, and tingling, and formication in the right thumb and the soles of the feet; the calves of the legs are stiff, sore, and tender on pressure; percussion over the vertebræ occasions no pain or contraction of the extremities; the pulse is soft, small, and 80; the bowels are regular; the appetite is improved. To have a large blister applied over the lumbar region.

24th. The formication in the thumb and soles of the feet has nearly disappeared; there is still tenderness on pressure in the calves of the legs; the patient feels weak, but can walk perfectly well; convalescent. To have middle diet.

25th. The whole of the distressing symptoms entirely removed. The patient continues rather feeble, but will be able to leave the hospital in a few days.

Professor Piorry observed, that in forming our diagnosis of the case before us, we must carefully take into consideration the whole of the symptoms, and the circumstances likely to have induced them, for should we be deceived in determining the nature of the disease, we might be led to adopt a treatment the most hurtful and injurious. Thus, we may ask, is it possible that it may be a lesion of the brain? If it were so, the pain in the head would be more deeply seated, more intense, and extended over a larger surface; the organs of sense

would most probably be affected, and there would be loss of consciousness, or convulsions, &c. May it be myelocoele, (a tumour in the spinal cord,) or myelomalacia, (ramollissement of the cord,) or hæmomyelorrhagia, (spinal apoplexy)? If it were any one of these affections, there would be partial paralysis or convulsions, and the nerves given off below the seat of the disease would be chiefly implicated. Again, is it probable that it may arise from epilepsy, convulsions, or chorea? There is nothing in the history of the case to indicate a predisposition to one or other of these affections, and the symptoms are totally opposed to such a supposition. Again, can we regard it as a case of what authors designate spinal irritation? It is true the debility of the patient, the absence of any recognizable exciting cause, and the small degree of reaction, might lead us to conclude it was so; but if, on the other hand, we consider the suddenness of the attack, the gradual augmentation and persistence of the symptoms, the violence, character, and extent of the pain, &c., we are perfectly justified in pronouncing it to be a case of meningo-myelitis. Thus, under inflammation, the sensibility of the cord is exalted; on percussing over the spine, the shock is carried to the extremities, causing contraction of the muscles, pain, &c. Again, the meninges being also affected, the irritation is propagated to the nerves as they pass through the foramina; this irritation extends by small communicating branches to the superficial nerves of the head, the ninth nerve, and the nerves of the upper extremities.

Having determined the inflammatory nature of the affection, our indications for treatment are very obvious. The patient's strength will scarcely admit of general bleeding, nor is it indeed necessary. The free circulation in the rachidian vessels, and their communication with those of the exterior through the foramina, point out how readily we may produce a decided effect upon congestion of the cord and its membranes by local blood-letting alone, and how easily we may subdue the excited circulation by the application of topical refrigerants; the after application of blisters will tend to remove the inflammatory products, should there be any. The speedy and favourable results of the treatment prove the diagnosis to have been perfectly correct, and show that resolution was obtained before the occurrence of any very material or extensive lesion, and the case may be considered as having proceeded no farther than what is denominated by Professor Millar "active congestion."

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A case of poisoning with hydrocyanic acid, attended by circumstances which give peculiar interest to it in a medico-legal point of view, has recently occurred in Worcester. It will be recollected that an inquiry into a case of poisoning by the same agent, in which there was the

manifestation both of consciousness and volition after swallowing the poison, took place some time ago at Bristol. In this case, which was reported at the time by Mr. Godfrey, (*Provincial Medical and Surgical Journal*, 1844, p. 398,) the individual, a man 44 years of age, after taking half an ounce of the acid, had walked ten paces to the head of the stairs, descended the stairs, seventeen in number, and then proceeded rather quickly to a druggist's shop, forty-five paces distant, where he had procured the acid, entering the shop in his usual slow and easy manner, and asking for "more of that prussic acid," before he became evidently affected by the poison which he had swallowed. In this instance, at least five minutes must have elapsed from the time of swallowing the poison before death took place, but there was no evidence to show the actual strength of the acid taken.

Another somewhat similar case is reported by Mr. Nunneley, of Leeds, (*Provincial Journal*, 1845, p. 461,) but in this also neither the strength of the acid, nor the quantity actually swallowed, could be accurately ascertained. Both cases were, however, further remarkable, in that there was neither convulsions nor shriek.

The case to which we are now referring will be found to differ from the foregoing, in that both the dose and the strength of the acid made use of are known. We subjoin the more important part of the evidence given on the inquest:—

Mr. John Stringer, druggist, of St. Swithin Street, deposed that the deceased, Mr. Benjamin Shepherd, surgeon, occasionally came to his shop to write a prescription, but he never made any purchases until yesterday. About one o'clock yesterday (Tuesday, June 8th,) he came to witness's shop with his sister, Mrs. Hill, and after the usual salutation, he said, "Just put me up two drachms of Scheele's prussic acid." Witness procured what was required, and handed it to the deceased in a bottle regularly labelled. Mr. Redgrave, of New Street, came in just at that time, and complained of a pain in his bowels. Witness, in joke, observed to him, "You had better take a dose of this," meaning the prussic acid. Mr. Shepherd thereupon observed, "That will cure you directly; you can't have anything better." Some further conversation took place, and shortly afterwards Mr. Shepherd left the shop, and returned again in a few minutes with Mrs. Hill. He then asked for an ounce of carbonate of soda, and placed a sovereign on the counter to pay for it. Witness declined at first to receive payment for so trifling an article, but as the deceased insisted on paying for it, witness gave him the change. The deceased then asked if any one was in the back room. Witness replied "No," and the deceased then walked into the room, saying to witness, "I want a word with you." Witness followed him into the room within two minutes (being detained by a customer in the shop,) and found him sitting on the

sofa. On witness going into the room he saw no alteration in him, but observed on the table the bottle in which the prussic acid had been placed, empty. [The bottle was produced: it was quite empty.] I said, "Good God, Shepherd, you have not been taking that." Deceased replied smiling, "No, no; its all right; take no notice. Give me your hand, old fellow." Witness went up to him, and the deceased added, "God bless you. Its all right; take no notice." Witness immediately took up his hat and went to fetch Mr. Griffiths, the nearest surgeon. Mr. Griffiths was from home, but came shortly afterwards, and witness proceeded to the top of Broad Street, where he met Mr. Pierpoint, who ran back with him, and found deceased on the floor, but not dead. Mr. Pierpoint and witness tried to administer ammonia, as an antidote to the prussic acid, and an attempt was made to produce vomiting. This did not succeed, and the stomach-pump was sent for, but on its arrival the deceased had just died. The quantity of Scheele's prussic acid in the bottle was about 120 drops, which contained about six drops of the real acid. This would kill a man instantaneously. Deceased had drunk some water in the shop just before he took the prussic acid. This would prevent the acid acting so rapidly.

Mrs. Stringer, wife of the preceding witness, deposed that she was below stairs when she heard some one go into the parlour over her head. She immediately went up stairs; (about twelve steps,) and looking through the glass door, saw the deceased on the sofa in the act of drinking something. She then went down stairs, and in about ten minutes, she heard footsteps of a person passing quickly. She then went up stairs again and found the deceased on the floor, Mr. Stringer having left the room to fetch a surgeon. Thinking he was in a fit, she placed a sofa-pillow under his head and unfastened his neck-cloth, and soon after Mr. Stringer returned with Mr. Pierpoint.

Mrs. Hill, sister of the deceased, deposed that her brother asked her on Tuesday if she was going into town, as he would go with her. Witness accordingly went with him to Mr. Smith's, in Sidbury, from whence they proceeded along Friar Street, and New Street, to Mr. Stringer's. Her brother had lately appeared much bewildered, as he did on Tuesday morning, and she had frequently to ask him questions two or three times before he appeared to understand her. She did not know what could have led to this, until last Sunday, when he read to her and her father an anonymous letter which he had received, observing that that letter was enough to disturb him. Her brother complained on Sunday of his head being hot, and had appeared incoherent in his manner for several days. He said that the people were all making signs at him; this impression appeared to be very strong on his mind. On Sunday and Monday he was continually making signs by moving his arms, placing them across his breast, &c.; witness endeavoured to dissuade him from such actions, but he persisted in them. The witness's evidence went further to corroborate what has already been stated in Mr. Stringer's evidence. She added that on her brother leaving Mr. Stringer's for the first time, he wished her to go on home while he returned to Mr. Stringer's for something else which he wanted; but witness having some misgivings, returned with him, and then he bought the carbonate of soda, and went

into Mr. Stringer's parlour. Witness entreated Mr. Stringer to follow him, as she was afraid there was something the matter with him. Mr. Stringer returned in a minute, exclaiming, "He has taken it." Witness rushed into the parlour and met her brother, who advanced towards her about a yard into the room, and said, "Good bye, Mary; God bless you; I have taken it." The witness's recollection here became indistinct from excitement. She said that her brother at first complained of being sick, but almost immediately he fell upon the floor. He did not eject anything from his stomach. She fully believed her unfortunate brother to have been much bewildered, and not in his right senses, when he was in Mr. Stringer's shop. He had previously complained of want of sleep, and took laudanum on Sunday for the purpose of procuring sleep. He had taken it on previous occasions for the same purpose, and to prevent coughing, he having some twelve months ago ruptured a blood-vessel in the lungs. Her brother had lately carried about him a large knife from his surgical instrument case, saying that "it was quite necessary in these times." He appeared afraid to go out alone.

M. Pierpoint, Esq., surgeon, stated that he was called in by Mr. Stringer to the deceased about one o'clock yesterday morning. He found him lying on his back on the floor in Mr. Stringer's parlour, his head lying on a sofa-pillow, and apparently dead. Mrs. Hill and Mrs. Stringer were present, and having raised the deceased, witness mixed some ammonia and water in a wine-glass, and attempted to pour it down his throat, but he did not swallow any portion of it, and none reached the stomach. Witness also applied a feather to the inside of the throat, with the object of producing vomiting, but without effect. He then sent for a stomach-pump, and in the mean time the deceased heaved a sigh or two and was dead. There was no pulsation at the wrist or heart."

The appearances observed on a *post-mortem* examination were here detailed. The following are the notes taken by Mr. Pierpoint at the time, to whom we are indebted for them:—

Countenance (particularly the lips,) livid; neck, shoulders, and all the posterior part of the trunk purple. On dividing the integuments, dark blood flowed freely; the blood of the body universally dark and quite fluid; the lungs loaded with dark blood, which had to a considerable extent gravitated to their posterior portion. The right auricle and right ventricle of the heart, and vena cava, full of dark fluid blood; the left ventricle firmly contracted and quite empty. Five out of six gentlemen did not perceive any odour of prussic acid upon approaching the body, either before or after it was opened. All the abdominal viscera healthy; urinary bladder half full of urine, which exhaled no unusual odour; brain natural, but full of fluid blood. The stomach contained about one ounce of raspberry-coloured looking fluid, and had a strong smell of almonds; the stomach itself, particularly at its cardiac extremity, had a very vascular appearance, and in some of the patches oozing of blood had evidently taken place. Some of the patches had also a brownish appearance.

It is obvious from the foregoing account that the time which elapsed from the swal-

lowing of the acid to the fatal termination must have been some minutes. There was both consciousness and volition manifested, according to the evidence of Mr. Stringer, about two minutes, and according to that of the sister, for some time longer, after the poison had been taken. There was no evidence of the occurrence of either convulsions or shriek.

As the quantity of the acid measured out to the deceased was known, and as he was seen to drink it out of the bottle, the bottle being afterwards found quite empty, it became very desirable that the strength of the acid should be accurately ascertained, Mr. Stringer was therefore asked for a similar quantity of the acid taken from the same bottle. This was put up in a sealed phial, and sent to Mr. Alfred Taylor, of Guy's Hospital, with a request that he would be good enough to submit it to examination. To Mr. Taylor's kind compliance with this request we are indebted for the following notice:—

The phial contained 105 drops, weighing 98 grains. The whole of this was precipitated by a solution of nitrate of silver in excess. The precipitate (cyanide of silver,) was thrown on a filter, and washed until the washings were no longer affected by chloride of sodium. It was then thoroughly dried in a vapour bath, and weighed in a balanced filter.

The quantity of dry cyanide of silver obtained was 9.3 grains; and as 100 of cyanide are equal to 20.14 of anhydrous acid, the quantity of *anhydrous* prussic acid, present in the 98 grains of the acid forwarded, was equal to 1.87 grains.

Ag.Cy.	H.Cy.	Ag.Cy.	H.Cy.
100	: 20.14	:: 9.3	: 1.87

The acid, therefore, had a strength of rather more than 1.9 per cent., or nearly 2 per cent. I presume therefore it was intended to be the acid of the London Pharmacopœia.

The quantity of acid taken, according to Mr. Stringer's evidence, may possibly have been somewhat more.

Traces of the acid were found by Mr. Orwin in the fluid taken from the stomach, by whom it was submitted to examination.

This case, therefore, the leading features of which have here been detailed, adds another instance to those already on record, in which life was not immediately extinguished by a fatal dose of the poison,—in which certain acts implying consciousness and volition were performed, and in which death, as far as could be ascertained, was not preceded either by convulsions or the "shriek." It differs from former cases in this important particular, that the actual quantity taken, and the strength of the preparation, have been determined.