PECULIAR SYMPTOMS

AFFECTING AN ENTIRE FAMILY,

AND

TERMINATING IN DEATH.

By JOHN WILSON, M.D.,

PHYSICIAN TO THE MIDDLESEX HOSPITAL.

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WHATEVER professes to be a science, must have the base of its structure founded on facts. And in every science, any facts relating to it, which may not have been noticed before, ought to be carefully recorded, so that they may tend to explain, or be explained by, existing theories or systems ; if not, by being recorded, they may, with future observations, be conducive to new views or further discoveries.

These are the reasons that induce me to state a series of facts, such as I have never witnessed before, —a group of symptoms, having their origin in an unknown cause, being developed with a striking uniformity, seizing first one, and then another of a family of six persons ; afflicting each individual in their general combination, very similiarly ; in their duration differently ; but uniformly terminating in death.

Yet, for these symptoms, I attempt not to assign

a cause, neither have I a remedy to suggest, in the event of the recurrence of such cases. I merely record them as effects,—relate their progress and fatal termination, in the hope that others may hereafter be enabled to throw some light upon the subject.

Maria Arzoni, the mother of a family of three children, was admitted January 26th, 1841. Says, that on new year's day, her husband, a Neapolitan, and manufacturer of ultramarine, was taken with griping pains and purging, which never ceased till death. He was sick at times, but never vomited. The motions were offensive and black. He had frequent cold fits through the day, followed by much fever. His joints, from the beginning, were swollen, not red, but so painful that he could not move on being put into a warm bath.

On the 2nd January, the infant, which died, and she, the mother, an Englishwoman, were seized with violent pains at the crown of the head, and a desire, with inability, to sleep.

During the night, she, the mother, lost her consciousness. Her bowels, from the first, were affected with severe pain, and she felt a frequent desire to evacuate them, when, at times, nothing but foetid gas, like that of rotten eggs, came away; at other times, the matter passed was like putrid and very offensive flesh. Three days after being first seized, she lost the use of her limbs, and had pain in all the joints. On the sixth day, œdema of the feet, legs and thighs came on. The urine was scanty, very high-coloured and offensive. The water, which

from the first flowed from the mouth, had a "cankery" taste, the glands of the neck and lower jaw were tender, and the eyes watered. The discharge of water from the mouth and eyes still continue; tongue very red, clean and transversely fissured. Gums vascular, quite clean, not swollen, but rather contracted. Abdomen large and also tympanitic. Thinks she may be four months gone in the family-way. Complains of general soreness, debility, and lowness of spirit.

Next day after admission, the urine was brown, very alkaline, and had a white ropy sediment. She still has the peculiar taste in the mouth, but most marked under the tongue, of which taste every thing she takes seems to partake. Exquisite sensibility and soreness over all the body. Says the motions are of a better colour than they have been at any time previously. She and also both of the children now wished for some acid drink, which was given them, but her urine continued for some time afterwards very alkaline. She never rallied, but continued greatly depressed, both in mind and body.

A few days afterwards, the legs and thighs became erythematous and shining, the œdema increased and pitted. Purging frequent, and, at times, motions passed involuntarily after taking fluids. No appetite, and every thing turns sour on the stomach.

February 8th.—For two days, itching of the whole body has taken place of the exquisite sensibility and soreness. There is a waved erythema over the

back and abdomen, the skin being variegated by alternate red and white streaks. The erythema of the legs continues, though she has somewhat more use of the limbs.—Complains of thirst, and again wishes for acid drink ; urine afterwards became neutral, but she became more feverish and restless. Mouth and eyes continued to water. A troublesome, dry, hacking cough came on, and continued, which prevented sleep, and caused severe pain in the head. Purging recurred, and she was obliged to keep a bed-pan under her ; when the purging ceased for a time, the motions were of a dark drab colour, as they have generally been.

The cuticle of both legs broke, and after the discharge from them had continued for some time, the swellings had much diminished and altogether subsided afterwards ; the urine increasing at the same time. Intellect has always been perfect. Often has only been able to take arrow-root and jelly.

February 25.—Mother's pulse 72, foetal pulse 130.

March 15th.—Gave birth to a very small infant, which only lived twenty-four hours ; its length was $14\frac{1}{4}$ inches, weight $2\frac{1}{2}$ pounds. From this period Dr. Ashburner continued to see her. The pain over the abdomen remained the same as before delivery, and different from any she had felt after a confinement. Puerperal fever supervened, and on the 21st March she died.

Inspection forty-eight hours after death.—A considerable quantity of turbid fluid in both sides of the

chest. Adhesions of the right lung and upper part of the left, which last had tubercular depositions at the apex. Much clear fluid in the pericardium. Abdomen contained a large quantity of turbid fluid mixed with pus and shreds of lymph. Stomach and intestines very much distended with air, but no morbid traces found in them. Liver pale; and throughout the entire body there was a great deficiency of colour. Some coagula in the large vessels. Uterus had not contracted to the size it usually does in the time elapsed since delivery. Spermatic veins of the right side of the uterus thickened, and filled with a fibrinous clot, extending up to the vena cava.

John Arzoni, aged 11, admitted 26th January 1841, was seized a fortnight ago with great pain in the limbs, so that he could not bear to be touched nor turned in bed.—Water flowed out of the mouth, and had a “metallic” taste.

A week afterwards he was attacked with pain in the bowels, but was neither sick nor purged;—the pain went away next day. Now the ankles are slightly cedematous. Jaws so painful that he has much difficulty in opening the mouth. Urine neutral, and has a white ropy deposit. Wishes for acid drink. No watery discharge from the mouth, but he has had a coppery taste in it for two or three days past. Eyes slightly watery. The fleshy parts, but chiefly at the thighs, are extremely tender to the slightest touch. Joints seem to be less painful than the flesh.

A few days afterwards he complained of hunger. Urine became acid, and he ceased to wish for lemonade. Motions natural. Still continued very tender all over. Night sweats about the head and chest became profuse, and there was some bleeding from the nose.

February 5th.—Countenance haggard, pinched and very pale. For several nights past, and especially the last, (though the nights are extremely cold, 10 or 15 degrees below the freezing point) he lay with only a sheet over him. Pulse 130, respiration 56. Has a short, troublesome, hacking cough; but without expectoration. Intelligence remarkably acute, and has never been impaired. Diarrhœa at times.

Afterwards the legs, thighs and back became more swollen. Though he could not bear to be touched without crying, yet the nurse had to turn him every five minutes.

The last night difficulty in swallowing came on. The sheet only covered him partly, but even that he did not wish for. The diarrhœa recurred within the last few days. Died 11th February.

Inspection twenty-eight hours after death.—Œdema of the legs; all the muscles remarkably stiff and pale. Tissue of both lungs infiltrated with black blood, particularly the posterior parts, and so heavy as to sink in water. The margins of both lungs were emphysematous. The cavities of the heart contained very black, soft coagula, but without any fibrine. Stomach empty, much corrugated, and

general surface pale, but the depressed parts of the folds were of a pink colour, and about the large arch in one of the depressions was a small excavation, narrow, red, and one third of an inch in length, filled up with a black coagulum ; when washed, the excavation had an appearance somewhat like an ulcer in the process of healing. Near the same part, and within the space of four square inches, were three or four much smaller spots, similar to the above, but without coagula. Not far from the same part was a longitudinal depression, less deep than the first, and much paler, about $\frac{3}{4}$ ths of an inch in length.

The intestines internally had generally a pale appearance, with some exceptions of a more vascular pink colour.

The brain showed no morbid appearance.

Mary Ann Arzoni, age five, admitted 26th January, the same day as her mother and brother, was attacked at the same time as her brother, with, as the mother says, precisely the same symptoms. She cannot bear to be lifted nor moved without crying, yet during a night she asks 200 or 300 times to be turned. Tongue very red, as much so as that of one in severe scarlatina. Slight bleeding from the nose and ears for three or four days past. Complaints of cough, tightness in the chest, and hunger. Pulse 120. Urine very alkaline and free from albumen.

A few days, after taking lemonade and oranges, the urine became intensely acid.

A fortnight afterwards, the legs and eyelids were

oedematous. Pain and hunger not diminished. Slept only in the days.

A month after admission the face became more haggard, thin, and quite pale. Swellings of the legs less. Eats meat, and, when not eating it, frequently cries for more. Now she can only lie on the left side, yet she requires the position to be changed every five minutes. She coughs, but never spits, and feels sore all over. For many days she lay without any bed-clothes, and rested very little in the nights. Picks the nose and ears, which still bleed a little. Shortly afterwards, the swellings of the legs had disappeared. She could lie again on either side ; slept more, but the eyes in sleep were never quite closed. Subject to diarrhœa.

March 24th.—Sleeps better, can now lie on the back, which she has never been able to do before, and does not require turning so often. Still more emaciated ; though she takes for breakfast bread and milk. At 10, has wine and water with a biscuit. At 11, an egg. At dinner, a pork chop, and sometimes pudding also. In the afternoon, one or two cakes. At 5, bread and butter, with milk and water. For supper, bread, with wine and water.

May 20th.—For some nights lately she has not required to be turned, and sometimes is able to turn herself a little, which she never could do before. For a month past has slept much better, both in the nights and days, and during that time has not got

thinner, if that were possible. Looks rather better. Continues to take sesquioxide of iron, gr. xv. thrice a-day, which she has been in the habit of doing for many weeks past. Purging ceased.

June 19th.—For some time past she seemed, if anything, to be rather improving: was able to turn herself, and to eat her chop, take wine and eggs with great appetite, and went on with the sesquioxide of iron. The sores on the sacrum and hips were looking better. The intellect was quite clear, as it had all along been. No worse symptoms appeared till within three or four of the last days, when the cough became more troublesome, with some expectoration, and difficulty in breathing.

During two or three of the last days she lay without any bed-clothes over her.

Died 19th June, six months after admission.

Inspection forty-eight hours after death.—The lower lobes of both lungs were congested with blood, and portions of them sunk in water. They contained also some small spots of purulent-like depositions, somewhat similar to those found in phlebitis.

Stomach exhibited some few small spots at the bottom of the folds, like as if the mucous membrane had been partially destroyed, and looked more like a chronic state of abrasion in the sulci, than those noticed in her brother, the traces being more slight.

Mesenteric glands enlarged. The body weighed only $24\frac{1}{2}$ pounds.

Remarks.—The death of the mother was accelerated by parturition, and examination after death showed very extensive disease in both the abdomen and chest, yet probably differing considerably from what might have resulted had parturition not occurred, and had she died, like the children, of the affection common to all of them, and not been sooner carried off by a new disease supervening on the original one.

The abrasions or ulcerations in the sulci of the stomachs of the children have been noticed; but they were so slight, that in ordinary cases they might have been overlooked, without attention being particularly directed to the inspection of that organ. Neither the mucous membrane of the intestines, nor other parts of the abdominal viscera, showed any particular change from the normal state.

But the organ by which death finally entered, appeared in these two to have been by the lungs; for the blood at last seemed to have infiltrated into their tissue, rendering portions of them dark, and so heavy, yet not hepatized, as to sink in water, and resembling considerably the state of the lungs of those who died of the spotted fever in 1837, and which I have described in the Medical Gazette as non-circumscribed pulmonary apoplexy, caused by the blood becoming so altered as to escape from its proper vessels into the tissue of the lungs, thus rendering portions of them (as in these) black, and

so heavy as to sink in water. Yet these parts were not circumscribed by healthy lung, but they gradually shaded off from the heavy dark parts to the permeable portions.

In general the treatment of this family was merely palliative. Among the few trials had recourse to in medicine, I used the saline treatment for spotted fever, but without any apparent advantage. The same may be said of the other trials, excepting the preparation of iron, which certainly seemed to restrain the purging entirely for a length of time, and to have been otherwise beneficial in improving both the colour and strength of Mary Ann, so that she was even able to turn herself a little. To the others iron was not given.

In all the three patients the most prominent features of their sufferings were the general soreness of the fleshy parts as well as of the joints, exquisite sensibility of the skin when touched, and the pain produced whenever they were moved, or their positions changed, according to their so frequently-expressed wishes.

Next may be noticed, the œdema, and particularly that of the inferior extremities, which was present in all the three. The alkaline state of the urine when admitted, and their desire for acid drink. The faces of all being pale, haggard, and so care-worn, as to give to the children the aspect of aged dwarfs, from their hollow cheeks, sharp features, exsanguined and emaciated bodies. At the same

time their appetites were great, and that of Mary Ann ravenous. Yet the mother's never was good, but on the contrary, at times, it was difficult to induce her to take even some trifling sustenance. The mother at different times was much exhausted by diarrhœa, and both the children suffered from it, but less severely. The father also is stated to have been affected greatly by a disordered state of the bowels.

During their afflictions, the intellects of all preserved their integrity, and might even have been regarded as preternaturally bright, had it not been ascertained that every one of the family was reckoned quick and clever. Towards the nurses their tempers were irritable.

Lastly, there was the "cankery" taste of the mother. The "metallic" taste of the boy. The watery state of the mouth and eyes in each. The teasing, hacking, dry cough, common to all, and affecting the children particularly towards the last.

Then their lying sometimes without any covering, even during the coldest season, and when dying objecting to even a sheet; while their flesh was so greatly wasted, and the lungs becoming less and less capable of absorbing oxygen, from the gradual infiltration of blood into parts of their vesicular tissue, diminishing proportionably the permeable portions.

All attempts made by me to trace the source whence originated these affections, resulting in the

loss of life, ended only in varied and conflicting accounts.*

After the admission of this part of the Arzoni family into the hospital, the coroner caused the bodies of the father and infant to be disinterred and examined. A chemical analysis was made. An inquest was held; yet no conclusive evidence resulted.

So that legal, chemical and medical investigations combined, have not been able to unravel the mystery which envelopes the cause of death.

I do not know that the following statement will be able to throw any light on the subject, yet it may be right to quote it.

On the 16th July, four men, who had been employed by Mr. Arzoni in the manufacturing of colours, called at the hospital with the following receipt, which they stated to be in the handwriting of Mrs. Arzoni, and that these ingredients were not used in the trade by them, nor could such be wanted for that purpose by Mrs. Arzoni. But it appears that Mr. Arzoni did not allow the men to become acquainted with all the arts he himself knew in preparing colours. For in the preparation of ultramarine he excelled all others in the trade, yet his method he kept a secret, which was never revealed,

* The family occupied the first floor of a house in Charlotte Street, Fitzroy Square. At the time this family was attacked, no other occupant of the house experienced any deviation from health.

not even to the foreman, an Italian, and it died with Mr. Arzoni.

“Two grains to each pound balsom corosivo, same quantity sala saturnè, same quantity of green coperas, the two latter in powder, to boil three hours after all the ingredients are dissolved.”

Probably the first article may be some preparation of corrosive sublimate.

But do not the effects described less resemble those of sublimate than of arsenic ?

Since writing this paper, I have received the following particulars obtained at the inquest, and for which I am indebted to the secretary of the coroner.

The husband was Giovanni Arzoni. At the same time that the inquest was held upon him, an inquest was held on his daughter, Maria Catherine Arzoni. The wife and two other children were reported as dying at that time, and it was alleged that the whole had been poisoned by some one of the family.

The inquest was held on the 2nd and 9th February 1841. The age of Giovanni A. was forty-seven years : he died on the 20th January. The age of Maria C. A., two years and five months : she died on the 16th January. G. A., when he gave directions for Maria's funeral, was himself ill a-bed, and so was all his family. He had already lost two children, one aged eight months, the other two years, some months before. Mrs. Arzoni ordered her husband's funeral before Maria was buried. The husband does not seem to have suspected poisoning,

or any non-natural cause for the disease of the family. It is certain that up to the evening of December 30th, 1840, he considered both himself and all the rest to be perfectly well. On the next morning, he, his wife and children, were all ill, he having been so during the night. I understand that the wife was very taciturn at the hospital, about the matters at this period; but on the 31st December she had said to a friend that she "thought that she was attacked with rheumatism." Their food at that season had consisted very much of fruit and plum-pudding. The children's first complaint was of aching in the limbs; the son particularly named this. The father referred his disorder to the chest, but spoke also of pain in the thigh. He sent for a medical man on the 31st December, who attended, and considered that Maria was labouring under inflammation of the lungs.

Giovanni had profuse diarrhoea, and was considered to be labouring under low typhoid fever. He, the professional attendant, had not the most remote suspicion that poison had anything to do with their complaints.

The plum-puddings were made by Mrs. Arzoni, and all partook of them, and a char-woman in the house also ate of one, but without evil. In short, no one in or about the house-suspected poisoning.

At the inquest, evidence was given that the husband and wife lived very unhappily, and threats against life passed between them. Though very violent language was made use of at different times

in mutual threatenings and imprecations, yet none of the hearers believed, after the death of the parties, that these quarrels found further vent in *poisoning*.

On Christmas Day they were very good friends.

Post mortem examinations.—Externally, the bodies presented nothing unusual. The stomach of the man was healthy, but slightly discoloured in one part, attributable only to a natural cause. The intestines were healthy. The lungs presented strong evidence of inflammation, both in their substance and in the pleura,—*quite sufficient to account for death*. The lungs were much distended by congestion, and hepatized. The stomach contained a very small quantity of fluid, three table spoonfuls, homogeneous, principally animal matter. The tests manifested the presence of no poison, neither arsenic, corrosive sublimate, copper nor lead. There was slight vascularity of the mucous membrane. There was no morbid condition of any of the viscera but the lungs in the child, and they presented some little congestion only. The stomach and intestines were specially healthy. The former contained two table spoonfuls of fluid, like that in the man.

When the wife and another child died, the coroner declined to hold inquests on them, because, on inquiry at the Middlesex Hospital, I found that the medical officers could not, from the symptoms, &c., add any thing to the evidence, tending to show

that the deaths resulted from a violent cause, and the inquiry would have been useless.

Arzoni made a famous blue colour, the receipt of which died with him. He was not known by his assistant, John Baptiste Zovanni, to use any poisons in his business.