and hepatic ducts were both pervious and dilated, and the bile ducts inside the liver contained inspissated biliary matter like that found in the gall-bladder. In the large curvature of the stomach were two small coagula covering ulcers two or three lines in diameter, which had so nearly perforated all the coats, that a probe passed through them without sensible resistance. There were two similar ulcers in the duodenum near the pylorus.

The kidneys were somewhat under size, with a slight granular appearance, with some cysts on the surface containing serous fluid. There were some old adhesions of the pleura at the base of both lungs.

From the facts which have been stated, it is justifiable to infer that chronic structural disease in vital organs had existed for an unknown time, during which it had been tending slowly but surely to its fatal termination.

CASES OF ALBUMINURIA OCCURRING AFTER SCARLATINA, WITH REMARKS.

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These cases are not related in the exact order of time in which they occurred, but they have been rather arranged so as best to illustrate the course of the affection and the influence of treatment.

Case I. was that of a lad aged about 11, who passed through the disease under homœopathic and hydropathic management. I saw him once accidentally during life, and witnessed his examination after death. The following brief statement of his case, therefore, is given at second hand. He had the primary disease in a favorable manner, and seems to have had no severe or alarming symptoms. He was regarded as having nearly recovered, when, between two or three weeks from the first attack, some œdema of the face was observed, but with no other marked symptom. Within a few days, on the morning of Wednesday, March 3, after having gone to bed, apparently pretty well, the night before, he awoke vomiting, and continued very sick through the day. The next morning, Thursday the 4th, he had convulsions, which continued to recur through that day, but not afterward. He became extensively œdematous, very pale, heavy, almost somnolent, with hard, labored breathing, and died on Saturday the 6th. The urine was described as dark and thick, but was not examined during life.

I was present at the examination after death, but, instead of my own imperfect record of the appearances, I prefer inserting an account of them with which I have been favored by Dr. J. B. S. Jackson, who was also present.

"*Lungs.*—Pneumonia of greater part of upper left lobe; red, solid, not at all granulated, but rather smooth; 'splenified,' or

'carnified' rather; rest of the lobe healthy. Something of the kind in the right upper lobe. No tubercles in the lungs; but some in the bronchial glands, white, opaque; and a semi-cretaceous mass, about the size of a pea, apparently in the lung, but really, no doubt, in the bronchial gland.

"*Pleuræ.*—Slight recent adhesions over seat of pneumonia. About ʒ x. of serum in the two cavities.

"*Heart* quite firm and rather large. Considerable blood and fibrin in cavities.

"*Abdomen.*—A few ounces of serum in cavity.

"*Kidneys* of usual size; dense; congested throughout. Cortical substance looks rough on cutting through it. Puriform matter pressed abundantly from tubular portions; urate of ammonia? Bladder full of urine, which coagulated by heat.

"Other organs of abdomen looked well."

Case II. was that of a sister of the subject of the preceding case, aged 9 years. She had the primary disease five weeks before her brother, and had been for some time laboring under the secondary symptoms at the time of his seizure. She had been similarly treated. She came under my care March 9—but I had frequently seen her before, as she had been confined in the same room with a patient of my own. Eight weeks before this date, then, she had had scarlatina in a moderate form. The eruption was described as having been full, but the febrile symptoms slight, with no affection of the throat. In a week she was convalescent; for a week more she continued improving, and was regarded as well. At the end of the second week—six weeks ago—œdema was observed, which soon became extensive; she vomited frequently, and retained but little food. Her urine, at this period, was described as having been "dark like frozen red ink." After three weeks she had convulsions, which have been repeated occasionally ever since. When the cerebral symptoms began, as she afterwards told me, she experienced a variety of visual illusions. She saw little negroes dancing about the room—her aunt, who was attending her, appeared as if sitting in different parts of the chamber and making faces at her—spots of all colors seemed floating about in the air. This last continued for a long time, even after she was partially convalescent. She was sensible, at the time, of the character of these phenomena, but was totally unable to correct them.

March 9th, 1852.—The face and lower extremities œdematous, but the abdomen neither swollen nor tender. She was universally anæmic. No suffering in the head. Pupils larger than natural, but contractile, though not rapidly. Countenance fixed, stolid, wanting in animation. She was dull and heavy, her manner slow and listless. She apparently took little notice; but said she felt well. She had occasional vomiting—and was almost constantly spitting a liquid which seemed to flow into and fill her mouth like saliva, and to resemble it. This discharge continued a long time, and the quantity discharged from first to last was enormous. It continued

in some measure after she was otherwise nearly well. The urine was in moderate quantity—looked like bloody water, and was highly coagulable. The pulse 84, quite feeble. The respiration 20. There was no cough or expectoration.

It would be foreign to our present object to give the details of the history or treatment; a brief outline will be sufficient. She took successively acetate of potass, gallic acid, iodide of iron, and iodide of manganese, and, during their use, a small dose daily of oxymuriate of mercury and sulphate of iron. External applications were made over the kidneys in the form of sinapisms, liniments and vesications.

She was put at once also upon the use of Rhine or Hock wine, beginning with two spoonfuls every few hours, and daily increasing the quantity. This was the first thing she had relished, and she took it with great satisfaction.

March 14th.—The quantity of wine had been increased to a wineglassful; so that she took six in twenty-four hours. She continued to relish it highly, said that she felt it "all over her," and that it produced a warm sweat "all over." Her skin had been previously dry and harsh. It was now soft and moist. Her food had consisted of such common articles as she would take—bread, meat, &c. She was more lively, took more notice, and was in better spirits.

21st.—Continued to crave the wine, and was taking two thirds of a common quart bottle a-day.

She had improved much in her general aspect and condition; was still œdematous, but less so. There had been no return of convulsions. Her urine varied much; being on some days nearly natural; on others dark, bloody and highly coagulable. She took her food with good appetite—but sometimes threw it up by vomiting, and the bowels were occasionally disturbed by it. She slept well. The spitting had diminished.

April 14th.—Had continued improving. No vomiting for a week. Urine natural in appearance, but still moderately coagulable. The wine was still taken, but the strong relish for it had abated.

22d.—Was still better—her food has been chiefly mutton chop and bread. The quantity of wine has been reduced to half a bottle daily. Spitting less.

May 9th.—She had gone into the country, where I saw her. She continued to improve, but was a long time in a state of imperfect health; her constitution seemed to have received a very severe shock, from which it rallied very slowly. For a long time she was subject to some return of œdema—to the spitting and vomiting—and was dull and abstracted. I doubt if she have yet entirely recovered from the effects of the disease.

Case III.—A boy aged 3½ years, attacked by scarlatina April 28, 1849. One sister had been taken *eleven* days before, and another was taken *eleven* days after him. Both of these had the disease very

mildly and no secondary affection. In the boy the symptoms were somewhat more severe, but by no means of an aggravated character. The eruption was full, and, when it began to fade, which it did on the fourth day, he complained slightly of his throat. By the end of a week, May 5, he was convalescent.

May 14.—Sixteen days after the first attack he was observed to be œdematous about the face, especially around the eyes, and the affection soon assumed a decided form. He had frequent gagging, occasional diarrhœa, intolerance of light, doziness, frequent sighing, loss of appetite, pulse very frequent and feeble. The urine was scanty; sometimes like Port-wine and water, with much sediment, consisting chiefly of blood globules; sometimes dark like herb-tea, also with the same sediment. It was early highly coagulable, forming a solid mass by heat, like the white of an egg, which could not be poured from the test tube. The œdema extended to the whole lower extremities and abdomen; but there was no evidence of effusion into the cavities.

On the 22d he had swelling of the left submaxillary gland, which on the 25th had terminated in suppuration, and pus was discharged.

The medicinal treatment amounted to little, as he steadily objected to remedies. The acetate and hydriodate of potash were prescribed early, and he had irritating applications over the kidneys. The diarrhœa, which occasionally recurred, was checked by the Tr. camph. opiat, and late in the case the compound tincture of bark with sulphuric acid was directed.

The only article taken to such an extent as to have had any probable influence upon the case, was wine. A few days after the appearance of the dropsical symptoms, as he refused all nourishment and seemed extremely feeble, the attempt was made to give it to him. He at first refused. It was mixed with sugar and ice, and offered whenever he wished for drink—Champaigne at first, and afterwards Hock. He soon relished it, and took scarcely anything else. The quantity was gradually increased, till for a considerable time he took a common bottle of the Hock, a-day; and on one occasion somewhat more. There was never the slightest indication of arterial or mental excitement, and no increased heat of the skin. He began soon to improve as to the œdema and the character of the urine. On the 28th he had a number of spots of ecchymosis in different parts, but they vanished in a few days.

June 12th.—The œdema was nearly gone. The urine was not coagulable, depositing a light-red sandy sediment; the appetite good. By the 16th he was apparently well, and went soon after into the country.

I am not able to state the precise length of time that wine was taken—certainly till near the period of the disappearance of the œdema. After getting his appetite, he one day suddenly refused it entirely, and would take no more. Since then, now more than six years, as his parents inform me, he "will not taste anything spirituous or of the nature of wine, not even cider." At the time

of thus breaking off, he was taking the full quantity. He has since been a fine healthy boy.

Case IV. and V. were both of girls, aged severally 6½ and 8 years. In these the same treatment was employed, and with apparent benefit, but the quantity of wine taken, though large considering the ages of the patients, was much less than in the preceding. In case IV. there were symptoms which I took to indicate acute inflammation of the kidneys—such as chills, continued nausea and vomiting—a continued and very obscure pain in the abdomen, unattended by diarrhœa—tenderness in the loins, with daily paroxysms of fever, accompanied by watching and restlessness. Here the use of wine was not begun till the acute symptoms had partially subsided. When given, however, it produced no increase of the febrile or inflammatory indications, and appeared to act favorably upon the course of the disease.

Symptoms like those which have been described are by no means infrequent, but much more in some years than in others. So far as I have noticed, they have been less likely to occur in severe cases than in those of moderate severity—rarely where there has been a bad affection of the throat. They usually come on in from a week to a fortnight from an apparent convalescence, during which the primary symptoms have subsided, the appetite returned, and the patient has ceased to be under the notice of the physician. In the above instances the attack took place between 13 and 17 days from the original invasion of scarlatina, the distinct symptoms of which had continued about a week in each.

The access is usually gradual. Œdema about the eyes and ankles is often the first thing noticed, but almost always inquiry will show there has been some falling off a few days before. Sometimes the attack appears sudden and takes place with chills, headache, pain in the abdomen and back, with fever and restlessness; but even such attacks have usually been preceded by some slight indisposition. In whatever way it begins, the further progress is characterized by very much the same set of symptoms; in mild cases, by occasional vomiting, nausea, loss of appetite often entire, irregular bowels, headache, sleepiness or watchfulness, irritability pains in the abdomen, tenderness in the loins, a very feeble and frequent pulse, and occasional turns of fever; in severe cases, by a greater intensity of the same symptoms, and in addition by some graver affection of the brain, the chest or the abdomen. The amount of œdema by no means corresponds to the intensity of the disease. The urine is in all scanty—sometimes wanting for twenty-four hours, high colored, very dark, coagulable, and often bloody.

The occurrence of this secondary disease is usually attributed to taking cold, to improper diet, improper clothing, or to some defect in the management during convalescence. So far as I have been able to observe, there is no sufficient ground for an opinion of this sort. It as often occurs in those who have been the objects of un-

common care and solicitude, as in those who have been neglected. Indeed, that it must be owing to some cause more peculiar than these, is sufficiently obvious from the consideration, that they never produce the same results during convalescence from other acute diseases. There must be, therefore, some disease or some tendency to disease in the patient, produced or left behind by the exanthematous affection.

This very striking fact, that scarlatina is so frequently followed by an affection of the kidneys, attended by a marked derangement of the general health—*which occurs in the same way in no other disease*—suggests, I think, an inquiry of much importance in its bearing on the nature and tendencies of the original disease, and perhaps on its treatment. The points to which this inquiry should be directed are sufficiently obvious. It should be directed to the history of the secretion of urine as it presents itself in connection with the very various degrees of intensity—predominance of particular symptoms—changes of course and character—modes of termination and subsequent state of health, which we observe in scarlatina, and which make it so remarkable a disease.

I recollect a fact—insulated it is true—which will serve as an example of the phenomena that may come to our knowledge, and of which the collection of a great number may serve to throw light upon this subject. A female was engaged in attendance on a family affected with scarlatina. She was herself quite severely attacked with all the symptoms of the disease, except the eruption. She especially suffered from a very bad throat. After passing some days without relief, the urine being scanty, she suddenly passed a large quantity—dark and very offensive. This was at once followed by a marked mitigation and by speedy recovery.

It might probably be found that some of the other secondary results of scarlatina—such as the disturbance of the function of the digestive organs, the cutaneous affections, the glandular, and the so-called rheumatic, are connected with something wrong in the condition and secretion of the kidneys. As illustrative of the sort of connection which disease of these organs may have in the production of such symptoms, independent of scarlatina, I would refer to a case of albuminous urine, in which the prominent trouble throughout was a rheumatic affection, but ending at last in œdema and effusion into the pleura.

The relation which may exist between the general severity of the primary stage, the intensity of the eruption and the affection of the throat, between these and the occurrence and character of the secondary symptoms, is a point of primary consequence in such an investigation, and has an important bearing upon our views of the nature of the disease. The most probable theory of scarlatina is, that it is dependent upon a specific poison, which in the course of its generation and elimination produces the various phenomena. Now, if it be found *generally* true, as it certainly *often* is, that very *mild primary* cases are followed by very *severe secondary* symp-

toms, an explanation of the fact is suggested which may in time lead to useful views of treatment. If the amount of the specific poison in any individual case be slight, the primary stage will be slight also; and, on its subsidence, the recovery will be complete: but if the amount be large and the primary stage be still slight, its elimination may be imperfect and a secondary affection be the necessary result. It would not be inconsistent with this explanation that when the original attack is severe it is still frequently followed by very grave secondary symptoms.*

I may be pardoned for this digression from the proper object of this paper, from the consideration of our present imperfect knowledge of the treatment of scarlatina. It is, I believe, the general opinion of intelligent practitioners who are familiar with this disease, that there are few acute affections less amenable to treatment than this in its primary stage. The secondary symptoms are certainly more capable of mitigation, but even these are among the most obstinate with which we have to contend. From the course of treatment here described, there has appeared to be more effect than from any other I have employed. Still it would be premature to assert that recovery was owing to the measures employed, since a large proportion of similar cases recover under any and all modes of treatment.

It may be inquired whether there was any reason for the preference given to the Hock wine, and whether other kinds of wine or analogous stimulants might not be as well employed. This wine was selected on account of the great effect which it is sometimes known to have in exciting the action of the kidneys. In this respect it seems to exceed other kinds. Still they might answer equally well, and, in any extended application of this mode of treatment, should be tried.

Perhaps as important a practical inference as any from these details, is the fact they establish of the capacity, in young children, in some states of disease, of bearing large quantities of wine certainly without injury, and apparently with benefit.† They suggest also the question whether, when the relish for it is very decided, and common quantities are well borne, it may not be advis-

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* The following is an example of the serious consequences which will sometimes follow an extremely mild attack. I was called early in the afternoon to a child, 4 years old, whom I found dying. She was sitting erect in a chair, being unable to lie down, with labored breathing, a livid countenance, pulse almost extinct, and extremities cold. She died in a few hours. On examination, effusion of serum was found to have taken place into both the pleural cavities. On inquiry, I learned that about a fortnight before, she had been affected by a slight eruptive disease, which, from description, I inferred to have been scarlatina, though it had not been severe enough to require medical attendance or even confine her to the house. She had been supposed to be quite well till within forty-eight hours of death, and nothing had occurred to give alarm till the very day on which it took place. In this case, which happened twenty years ago, the urine was not examined—but there had been, I am confident, some œdema, and there can be little doubt it was of the same character with those which have been described.

† In the case of a child 18 months old, who was suffering extremely from an eczema, which covered the greater part of the body, and produced great irritation and exhaustion with continued loss of sleep, a glass of Madeira wine was taken every day for several weeks, with decided beneficial influence not only in supporting the strength, relieving the irritation, and promoting sleep, but also, apparently, upon the state of the cutaneous affection.

able to push its use as far as the inclination of the patient will carry him, and indeed, in very bad cases, as far as he can be urged to go, when laboring under conditions in which wine is called for. I can recollect no case in which the patient has appeared to suffer from taking too much, but have often had reason to think it would have been better had he taken more. It is a gratifying circumstance, and one which tends to remove the very proper repugnance we have to the administration of stimulants, that in all cases where large quantities have been employed, they at last became distasteful to the patient, and produced no subsequent relish for them. I apprehend that the chance of acquiring a permanent morbid taste for them is much less where their use has been carried to very large quantities, than where it has been more limited.

CASE OF FRACTURE OF THE SKULL.

[The following case is reported by C. Ellery Stedman, M.D., the specimen having been exhibited to the Boston Society for Medical Improvement by Dr. Charles H. Stedman, August 13th, 1855.]

Wm. Thompson, mate of the Barque Kilby, was admitted to the United States Marine Hospital in Chelsea, at 5 o'clock, P.M., 23d July, 1855, reported to have been struck with a hatchet the morning before, at 5 o'clock. When he and his antagonist were separated, he had his arms tightly clasped around the latter. He was removed to the cabin, and his head closely enveloped in cloths, over which "balsam" had been poured. He had been perfectly conscious, according to the testimony of the captain, since the accident, and had lost much blood by repeated hæmorrhages. On entrance, he was very weak; his lips and face were blanched; his pulse rapid and very small. Brandy was administered; and the dressings applied on board ship were removed with some difficulty, when profuse hæmorrhage took place from the region of the right temporal artery in front of the ear. This vessel, with several smaller ones, having been secured by ligature, and the clots turned out, the wound was found to extend from the right zygoma, curving towards the orbit, and terminating three or four inches above the eyebrow; being nearly a semicircular cut, six or seven inches in length. In its upper third was detected a fracture of the skull, which would admit, between its edges, the tip of the little finger. Some superficial wounds were noticed on the head, shoulder and arms. During the dressing he was restless and very intolerant of pain. There was no stupor—he answering all questions correctly; pupils natural and breathing easy.

The next morning, re-action came on, and he complained of pain in his head. He continued very comfortable, with a pulse of about 90, till the morning of the 29th (a week from the time of the accident), when he was very restless; spoke of much pain in the head, the wound on which had been doing very favorably, and