rough, glazed, and dry, and the marginal blepharitis is probably in the first instance the result of infection from the hands, which are frequently used to rub the eyes with, and is kept up by the ectropion, error of refraction, and dirty habits of the patient.

The number of patients examined was 28, corresponding to 56 eyes.

	Per cent.
19 patients have lens changes ...	67.8
18 patients have typical lens changes ...	64.3
35 eyes have cataract changes of some sort ...	62.5
33 eyes have typical changes in the lens ...	58.9
10 patients have some inflammation of the lids	35.7
7 patients have squint	
4 patients have choroidal changes	
2 patients have nystagmus.	

The age of the youngest patient is 5 years and the oldest is 43.

The youngest showing cataract is aged 9, and the oldest patient has a well-developed typical cataract of the kind described.

Fourteen patients have the interpalpebral fissure directed upwards and outwards.

We wish, in conclusion, to offer our best thanks to Dr. Caldecott, the Medical Superintendent of Earlswood Asylum, who has given us every facility for investigating these cases.

SOME EXAMPLES ILLUSTRATING CASES OF CHRONIC TOXAEMIA AT VITTEL.

BY

H. J. JOHNSTON-LAVIS, M.D., D.Ch., M.R.C.S., ETC.

PERHAPS in the whole history of the growth of a spa or hydro-mineral station none can compare with the remarkable rapidity with which Vittel has jumped into fame. Ten years since it was known to comparatively few physicians, and ranked as a fourth or fifth rate station so far as its resources and number of visitors were concerned. It now stands in the very first rank.

I have practised there seven seasons, and done two cures there myself annually, and may, therefore, claim to speak with some experience. I propose to select a few of my cases from one season's (1909) practice, and to point out the results as an illustration of the beneficent action of the cure in somewhat varied ailments. The cases of "physiological disequilibrium" and ailments that are relieved by Vittel treatment, of however varied facies, may all be summed up as the result of *chronic toxaemias* due to either perverted nutrition, defective metabolism, or incomplete elimination. This condition, which we English physicians denominate as "goutiness" and the French medical man as *arthritique*, is ill expressed by such terminology. All originate in an excess of one or more of the normal constituents of the blood or the presence of abnormal ones. When we look at these different disturbances of the physiological balance we shall all the more clearly appreciate the close association of many different ailments. We shall also be able to comprehend how a cure such as Vittel is one of the most effective and rational methods of restoring *physiological equilibrium*.

Who can draw the border line between acute and chronic gout, calculosis, some forms of nephritis, arteriosclerosis, neurasthenia, asthma, chronic bronchitis, some dyspepsias and enterocolitis, many skin diseases, neuritis, some rheumatisms, etc.?

When I have at other times sustained this thesis, critics have held me up to ridicule. My answer has been, Think over it, and tell me why we so often find several such states associated in the same individual at once or alternating with each other, and why the same cure with suitable modifications is so efficacious in relieving or curing these troubles.

All the analyses are of the entire and carefully collected quantity of twenty-four hours. They are made in my own private laboratory, fitted with the most modern and approved apparatus by my analyst, Dr. Burrais, of the Pasteur Institute. He knows nothing of the cases, and is therefore quite free from any personal equation modifying the result. All the results are calculated on the personal equation of each individual based on weight, height, and

age. Where extraordinary results are obtained, both of us repeat the determination. All calculations are based on the personal coefficient. I have much pleasure in thanking him for his valuable and skilful assistance.

J. M., a highland chief, aged 58, 6 ft., weight 77 kilos, sent by the late Dr. Radcliffe Crocker. Has suffered for years from eczema on neck, fingers, toes, and fork of legs. He complained of feeling stiff in his movements, lacking energy, and always tired. Has also patches of psoriasis on knees. Two fingers and one toe suppurating around nails, the region of which is red, swollen, and angry. There is no syphilitic history. The son is a fine specimen of an officer in the Guards, wife in good health. Patient has always been temperate, has fairly good digestion, but takes an aperient every morning, "which keeps him all right." His skin acts freely. He is a strong, otherwise healthy man. He has been twice to Homburg, and three times to Schinznach, with little benefit.

On July 18th, day after arrival, had a mean blood pressure of 135 mm. His urine is represented in the following diagram, which is remarkable by the enormous amount of solids, com-

J. M., July 20th, 1909.

Traces of some reducing material (? glucose). Slight traces of true and modified biliary pigments and of scatol. Abundant deposit of urates and some pavement epithelium. Purins 0.518 per 24 hours.

August 9th, 1909.

True biliary pigments in traces, as also faint reaction of scatol. Urates and cells much less. Purins 0.689 per 24 hours.

posed of all the elements of the urine, but specially chlorides, which were 75 per cent. in excess. His urea-uric acid coefficient is sensibly normal, but both are increased nearly thirty per cent. above what they should be.

After a few days he was drinking 1,800 c.cm. of Grand Source before breakfast, and 900 c.cm. in the afternoon. The skin was kept active with baths at 36° C., and a low semivegetarian diet ordered, excluding salt as much as possible.

Another twenty-four hour urine analysis, made on August 9th, one day after the cure was stopped, shows a remarkable change. The curve has the same general form, but approaches quite near to the normal line. Solids have fallen from 204 to 125 per cent., acidity from 144 to 110 per cent., urea from 128 to 90 per cent., uric acid and chlorides to normal, and phosphates to 9 per cent. below normal.

Simultaneously with this all his feelings of stiffness, loss of energy, etc., have disappeared, and all his skin lesions are rapidly healing.

I think we have here a case of excessive assimilation which led up to a state of autointoxication in which the skin was most affected, but he was on the verge of an outbreak of joint, muscular, and nervous trouble.

The lixiviating effect of a rapidly absorbable and rapidly excretable non-chloride-bearing waters is striking.

The purin bodies as a whole seem to have increased at the end of the cure. Whether we can interpret this as increased production or increased excretion of a retained stock could only be determined by ulterior analyses, which unfortunately could not be obtained.

The following three cases I have chosen because they consist of father, mother, and adult daughter living under sensibly the same conditions, and furthermore that, as they enjoyed Vittel so much, they stopped on for some weeks after their cure, and the second urine analysis was made at a considerable interval after their "cures" had stopped. These are rare opportunities, and I think worthy of study.

Dr. Curgenvén, who sent them to me, says:

"Mr. S. had an attack of cardiac weakness and irregularity about two years ago—a very irregular pulse, high arterial tension, a tendency to dyspnoea, and a dilated stomach; this was caused, I think, by living at too high a pressure, and too

generous a diet. With rest and careful dieting he soon improved. A year ago he had a mild attack of basal pneumonia, and he has occasional attacks and threatenings of lumbago."

Mr. C. S., July 25th, 1909.

Modified biliary pigments fairly abundant; indican marked; scatol slight traces. Purins 0.798. Abundant crystals of uric acid and urates, and also oxalates. Some epithelial cells.

August 23rd, 1909.

Modified biliary pigments normal; indican fairly marked; scatol traces. Purins 0.717. Urates of soda, very few oxalates, and epithelial cells.

The patient, Mr. C. S., is a hale and hearty looking man, aged 60. His digestion is fairly good, except for a little flatulence; the bowels regular. Cardiac area faintly increased when the heart is working at its normal rhythm. When I made my first examination, on July 23rd, his pulse was running at an almost uncountable rate. After various attempts and dodges I made it 192. While making notes of this and other observation, occupying about three minutes, I returned again to feel the pulse, when to my astonishment it was a steady, vigorous beat of 72. His mean blood pressure was 140 mm. He himself attributed his cardiac condition to extra smoking, he having filled in all the time of travelling by doing it. He was suitably dieted, and alcohol, tobacco, tea and coffee restricted. At the end of three weeks all his cardiac symptoms had disappeared, his digestion was all right; he expressed himself as feeling quite well. His pulse was still at 72, but his blood pressure had fallen to 115. Several days after stopping the cure this favourable state persisted.

The urine analysis anterior to the cure shows a large excess of nutritive substances and their waste products that the organism was making a great effort to excrete. In the urine analysis after the end of the cure we see that the solids, which were 133 per cent., have fallen to just below normal. The acidity has been but little reduced, only amounting to 12 per cent. less. Urea was reduced from 127 to 89 per cent., and uric acid to normal. Before the cure urea was much higher than the uric acid, whereas after the ratio was reversed, showing the great utility of the waters in restoring the proper ratio of these two bodies; in fact, this is almost universal, and clinically I have always found that when marked benefit has accrued this has been the case, and where absent the cure has been of less use.

The chlorides and phosphates had fallen considerably below normal. Diet will explain the former but the latter is more difficult to interpret.

Here we have an illustration of four distinct elements leading to chronic toxæmia—excessive smoking, alcoholism, feeding, and mental activity. This led to general circulatory spasm, in which both arteries and heart were affected. That true arterio-sclerosis had set in is disproved by the rapid fall of blood pressure under treatment, but no doubt a continuance of the patient's mode of living will soon lead to irreparable artery and heart changes.

Mrs. S., wife of the last patient, aged 45, of slim build, is congenitally partially deaf; is a very nervous woman, partly due to that defect; gets bad rheumatic pains, especially in shoulders, and stiff neck, which are specially excited by champagne and strawberries. She has occasional bad headaches but is a great cigarette smoker, and has marked arous senilis. Heart sounds normal except that aortic valves closed with a slight clang. Has had several children living, and two bad miscarriages and fibroids. Menopause at 42. Digestion is good but has to take cascara. Sleep moderate, perspiration very free. Takes plenty of exercise—golf, etc. Urine analysis at commencement of cure shows solids and acidity too high, urea 15 per cent. below normal and uric acid 47 per cent. above—a very great disproportion. Besides the cure she had some general massage with Vigorax,

a dietary in which fats and oxalate-bearing foodstuffs were excluded. The result of this was a vast improvement in her health—she became less nervous, her pains disappeared as well

Mrs. S., July 25th, 1909.

Traces of true and modified biliary pigments. Scatol reaction very marked. Purins 0.922. Fair quantity of urates, oxalates, and pavement cells.

September 3rd, 1909.

Traces of true and modified biliary pigments, and traces of scatol. Purins 0.206. Urates of soda fairly abundant; only a very few oxalates. Pavement epithelium cells and rhomboidal cells.

as her headaches. A second analysis made some time after the cure terminated shows that both the quantities and ratio of uric acid and urea have been readjusted to practically normal.

In this case we have a chronic toxæmia due to incomplete metabolism, urea being replaced by an excessive production of uric acid and oxalates. The cure has resulted in the rise of urea to above normal, coincident with the fall of uric acid to normal and the almost total disappearance of the oxalates. The purins as a whole fell to less than a quarter of what they were before treatment. How much of this was due to the food consumed it is difficult to say, yet both husband and wife were following much the same menu at the hotel.

Miss S., the daughter, aged 25, weighed 79 kilos, and is for her height and age obviously obese, so differing from her parents and also a younger sister who accompanied the family. As a girl she was always anaemic, has some dysmenorrhoea, but loses little. Had measles five years ago, and gets a delicate throat and is hoarse when tired or cold, which she attributes

Miss S., July 25th, 1909.

Both true and modified biliary pigments abundant; no indican, but scatol abundant. Purins 0.244. Urates abundant, large crystals of uric acid and some small oxalates and numerous pavement cells.

September 1st, 1909.

True and modified biliary pigments slight traces, and traces of scatol only. Purins 0.664. Urates of soda, rare crystals of uric acid, no oxalates.

to that disease. Suffers at times from facial neuralgi Mumps three years ago; has facial neuralgia since. Three years ago suffered from rheumatic pains. Leads a very active life. Digestion is good; the bowels, once troublesome, are now all right. She is a small eater and deep sleeper. Mean blood pressure 130 and an arrhythmic pulse of 80. Physical examination showed no apparent cause for this.

The twenty-four hour urine analysis at the beginning of the cure is very interesting. The volume is 60 per cent. below normal, due, I believe, to the stupid superstition that privation of fluids helps to thin people. This old and unscientific doctrine still has a hard and dangerous hold upon the public, and I am sorry to say is still a fetish of many medical men. Only those who have constantly to diet people can appreciate the difficulties in overcoming popular prejudices when one has to directly traverse the orders of one of one's colleagues.

The patient's excretion of solids is 20 per cent. below normal, due in great part to an insufficiency of the vehicle water, but also to the low chloride assimilation. Acidity is 26 per cent. above normal, whilst urea is only a little above one-third of the normal amount, whilst uric acid is 30 per cent. above normal. The patient is a small salt eater, probably in harmony with a defective assimilation of salt. The phosphates are also 34 per cent. below normal. The urine is burdened by urates, uric acid, oxalates, biliary pigments, scatol, etc.

The second analysis, made some time after the cure had finished but with the patient otherwise living under exactly similar conditions, shows a curve much more approaching the straight line representing normal, though still showing defective assimilation, but to a much less marked extent. Biliary pigments and scatol had markedly diminished, but strangely the purin bodies were nearly tripled, probably from some exogenous source. The further diminution in chlorides was probably partly due to diminished intake and considerable losses by the skin, as the patient was doing several hours of tennis besides being massaged.

During the cure her weight fell from 79 kilos to 77.450, and continued to diminish, but I have no record of what it really was on her departure from Vittel. She declared herself perfectly well, much more capable of energy, and all her functions in good order.

In this case we have another example of perverted assimilation and defective metabolism where the part most assailed seems to have been the adipose tissues.

Miss B., aged 24, had malaria as a child, but has had no traces for many years. As a big girl had eczema very badly, but that has gone long since. Four years since had "neuritis" in the right arm, supposed to be due to tennis. No other region was involved. She is nervous, neuralgic, rheumatic, has some fullness of the eyes not amounting to exophthalmos, but no other thyroid symptoms. Her digestion is described as perfect, bowels fairly regular, and general health very good.

Miss B., July 31st.
Traces of true and modified biliary pigments, and also very slightly of scatol. Purins, 0.380. Urate of soda. Great numbers of epithelial cells.

August 20th, 1909.
Biliary pigments, true and modified, very abundant, as also scatol. Purins, 0.904. Urates and epithelial cells abundant.

The urine analysis before the cure proved to be one of the most remarkable I have come across. The solids were *en masse* about normal though the volume was 54 per cent. above. Acidity was 39 per cent. below normal and urea 36 per cent. below, whilst the amount of uric acid reached the astounding figure of 116 per cent. above normal, chlorides only just 10 per cent. below, and phosphates 41 per cent. below.

In the second analysis, a day or two after the cure was finished, the urinary curve approaches sensibly to that of normal, acidity is now only minus 24 per cent., and urea 18 per cent. below normal, a gain of 18 per cent. Uric acid has fallen practically to normal—plus 8 only. Still, it is too high for the amount of urea, and I think another week or ten days' cure would have been advisable.

Strangely, with this enormous output of uric acid her blood pressure was but 120 mm., with a capillary reflex of 34, and pulse of 80. At the end of the cure, with the enormous debacle of uric acid, her blood pressure was reduced to 115, which I look upon as normal for my apparatus.

At the end of the cure she described herself as perfectly well and vigorous—fit for any undertaking.

The great increase of purins is again an illustration of the inscrutability of their amount in relationship to other physiological processes.

The next example I propose to put before you is interesting from several points of view. He is a typical example of that fat form of Frenchman that the English caricaturist delights in; secondly, he is mayor of the town, and has never drunk any other water but Vittel, though that appears to have been a most rare occurrence; lastly, he has been and is a most intense brain worker, always living under high pressure. He is a big and rapid eater, could not be called intemperate, but drinks heartily and takes no physical exercise. I have known him for years, and foresaw what was coming. He is jovial, good tempered, with his enormous charge of work as a busy lawyer, administrator of the town, and magistrate.

Mons. H. G. rises at 5 a.m., writes at his desk till 8 a.m., then takes café-au-lait one cup and a roll. He continues the work at his office till midday and then eats a good lunch with wine followed by black coffee.

In the afternoon does either office work or goes in his motor car to different clients of the region for business, and takes during the afternoon a black coffee and two or three glasses of beer.

At 7 p.m. he dines, usually with a soupe-au-lait, with much bread, nouilles, rice, and other farinaceous food. After dinner plays cards or other house amusements; during the season goes almost nightly to the theatre. Most of my consultations with him were in the *entre-actes*. He is a good sleeper, seven to eight hours, but a small smoker, and a great lover of sweets.

On June 22nd he consulted me at my house, having come to the end of his tether. He has been getting daily stiffer, less capable of exertion, gets sleepy and incapable of concentrating his mind, is always tired, and is rapidly increasing in weight—

Mons. G., June 27th, 1909.

Evident traces of glucose after defaecation with a lead salt. Biliary pigments, true and modified, well marked. Indican abundant. Scatol very abundant. Purins 1.147. Urate of soda very abundant, forming almost the totality of the deposit; a few cells, uric acid crystals in rosettes rather numerous and oxalate of lime fairly abundant.

September 6th, 1909.

No traces of glucose. True biliary pigments very slight. Modified biliary pigments well marked. Indican fairly abundant. Scatol abundant. Purins 0.770. Urate of soda, uric acid and oxalates but a fraction of what was found in first analysis.

he now weighs 103 kilos, his height being 1.68 metres, and his age 50. The family history is good, but several of his relations were fat.

His blood pressure was only 130 mm., but his heart muscle obviously failing. His capillaries are much dilated, giving him a very flushed and congested appearance.

The urine analysis is remarkable as showing the fluid starvation, the relatively high acidity, urea 26 per cent. below normal, uric acid 19 per cent. above, insufficient chlorides, and phosphates 25 per cent. below normal, the latter, no doubt, due to imperfect phosphatic assimilation, with the resultant failing brain activity.

He was ordered to do the cure, take either walking, cycling, or physical training exercise in the mechanotherapeutic institute. He was ordered a diet chiefly of meat, fish, and fowl, green vegetables, except the oxalate-bearing ones, fresh fruit and in compôte sweetened with saccharine, with the exception of grapes, bananas, figs, and other fruits of this kind. A little dry wine was allowed. Milk, butter, fats, farinaceous foods, sweets, disallowed.

For the first month, though fairly obedient for his dietary, he took his waters irregularly and did no exercise. His general state improved, but there was little diminution of weight. He bore badly electric light baths, feeling faint; but with shorter ones, and at a lower temperature, was able to continue.

Girths and Weights.

Date.	Chest.	Waist.	Hips.	Weights.
June 24th ...	Cm. 112	Cm. 116	Cm. 117	Kilos. 105
July 4th ...	112	113	117	105
July 25th ...	109	105	113	101
September 8th...	104	106	107	95

The result in general health was remarkable; he has gained all his elasticity of movements, his mental activity and promptness, and describes himself as feeling much younger. His circulation is better, his blood pressure has fallen 5 mm.; his pulse is now 48, but strong and vigorous.

The urine analysis of September 6th is a curious study, but is, I believe, partly due to the large amount of animal food he was taking.

I have not given any example of a large number of cases of renal calculus and other renal and bladder troubles. These cases usually show marked improvement, and often their symptoms disappear for years or entirely, whilst others only show temporary advantage. I do not consider that these cases should be reported till two or three years after manifestations have disappeared.

Chronic nephritis and arterio-sclerosis are two groups of maladies that show marked improvement. Professor Huchard, who has devoted so much attention to arterio-sclerosis and subsequent heart failure, sends many dozens of patients here, with marked advantage. He and others who hold the *toxi-alimentary* view as to the main causation of that disease explain the action of the waters as being what I will call *vehicular*, or, in other words, their flushing effect. I quite agree that is an important element of their eliminating mechanism, but I think that there are two others that apply to both kidney and arterial degeneration. First, these non-chloride bearing waters lixiviate the excess of that salt out of the system in a dilute form, and by so relieving the kidneys of a heavy secretory work allow them time and energy to expel the toxic substances that their excessive chloride work prevented them from performing. In the next place the assimilable lime salts, to which so much attention has been drawn of late, may also take a therapeutic share in the effect.

Of neurasthenia I have always personally held the *toxaemic* view, and in all the cases of that disease treated by these waters I have had unflinching success. The group of ailments which we call neurasthenia is so polymorphous and requires such a long probation time to be declared as cured, that they are difficult to give striking examples of. This is all the more so that in most cases beyond the nervous and mental instability there are other organic disturbances requiring accessory treatment, and then the problem of which did the work becomes a very involved one. Such diseases as so-called *gouty* bronchitis as well as asthma, obviously two *toxaemic* diseases, show remarkable improvement and often cure, but here again the probation period should be not less than a year.

During several years' practice I have had a few young epileptics who came to accompany their parents. I was asked whether the cure would do them good, to which I replied that unquestionably for their general health it would be. In three cases my astonishment was great at seeing their fits diminish in number and disappear without bromides; in two others this drug became much more effective. In several other cases only slight improvement accrued.

What is the meaning of this? Is it due to the removal of toxic substances, to the presence of which many authors attribute the epilepsy, or is it due to the lixiviation of the sodium chloride, which Vidal and others have shown to bear some relation to these explosive motor storms?

I am sorry that the few opportunities of observing this disease at Vittel prevents any useful study of the effect of the cure in these cases. It would be well worth the while to send any such cases which might open up a valuable method of treatment for this troublesome disease.

UNDER the will of the late Baron Schroder, head of the banking firm of J. H. Schroder and Sons, Leadenhall Street, the German Hospital, Dalston, receives a bequest of £10,000.

SCARLATINA MALIGNA.

By ARNOLD GREGORY, M.R.C.S., L.R.C.P.,

LONGSIGHT, MANCHESTER.

THE malignant or toxic form of scarlet fever is seldom met with nowadays, and a perusal of the literature in which it is described has convinced me that cases, such as came under my notice, are sufficiently rare to justify their publication. They occurred in the same family, and most of the other members suffered more or less severely from scarlet fever. The family consisted of seven children, with father and mother, who lived in a cottage in Selby. They were not robust, but much of the ordinary type met with in the working class districts of any town. The father and mother, both of whom nursed the children, escaped, as did also the eldest brother, who lodged outside; and a woman who assisted in the nursing was also unaffected. The remaining six children all suffered from scarlet fever, four of them in a severe form, three from the malignant type.

I was called on August 29th, 1905, to see the youngest child, Fred. T., aged 2 years. The illness had commenced two days previously, and I found him with mild degree of fever, slight sore throat, and a papular rash on the abdomen and limbs. The pyrexia lasted several days; some glandular enlargement developed in the neck, and later the tongue appeared somewhat to resemble the "strawberry" type. Improvement took place slowly with a considerable degree of anaemia and the development of numerous petechiae at the end of the third week. He eventually recovered completely. No strict isolation was carried out, as the diagnosis of scarlatina was not made until further developments made it quite clear.

On the evening of September 3rd Stanley T., aged 9 years, commenced suddenly with vomiting, abdominal pain, and diarrhoea. Twenty-four hours later, when I first saw him, he was acutely ill. The temperature was 104°, the pulse very rapid and feeble; there was great delirium; the tongue was thickly coated; urine and faeces, which were yellowish, watery, very frequent, and offensive, were passed under him. Death took place twenty-four hours later—forty-eight hours after the onset—without any rash being visible.

On the evening of September 4th Frank T., aged 14, began similarly with vomiting, diarrhoea, and great delirium. The tongue, at first thickly coated, became dry and very red and raw. On September 8th a typical scarlatinal rash appeared on the front of the chest, and on the following day it had spread to the abdomen. Melaena was also noted. The mouth remained very sore for long. The patient was so extremely ill when I first saw him that recovery seemed impossible. Contrary to expectations, however, he gradually improved and made a good recovery, desquamation occurring as usual.

Thomas T., aged 11, fell ill on September 5th, about mid-day. The onset, as in the two previous cases, was sudden, and the boy was prostrated and extremely ill from the start, with vomiting, abdominal pain, profuse diarrhoea, violent delirium, and high fever. The tongue, at first thickly coated, quickly became red and dry. The patient seemed absolutely overwhelmed by the poison, and succumbed on September 7th, after about thirty-eight hours' illness, no rash having appeared.

On September 11th, Beatrice Alice T., aged 16, commenced more typically with headache, vomiting, sore throat, and diarrhoea. The temperature was 102.4° when I first saw her, and a slight rash was visible on the chest; the tonsils and fauces were inflamed. The case ran rather a mild course, with desquamation.

Grace T. was the last to suffer. She had a fairly severe attack. Vomiting, diarrhoea, and a slight rash occurred in her case; after the subsidence of the diarrhoea the illness ran a fairly normal course.

Although the house contained several rooms, proper isolation was impossible. Stanley, Frank, and Thomas were attacked so suddenly and with such intensity, and when I first saw them they were so dangerously ill, that removal even to another room was not to be thought of, and they had to be nursed in the rooms in which they were at the time of onset. At that period, too, there was no hospital for infectious diseases in the neighbourhood to which the others, who were less severely affected, could be removed. The nursing, always unsatisfactory in infectious diseases when the services of properly trained nurses cannot be procured, had to be performed under most disadvantageous conditions.

Henoch, in his lectures on diseases of children, published in 1889, remarks that few medical men have not occasionally met with cases of malignant scarlet fever which have succumbed within ten or twelve hours from the commencement of the illness. The published statements of medical men in this country—at any rate, in recent years—do not bear out this view, but it must not be