The anterior portion of the sclerotica becoming thinned by absorption allows the dark choroid membrane to be seen through it, bulging out around the cornea, which, projecting forwards at the expense of its transverse diameter, thus forms the apex of the cone. In some instances the cornea, as well as the whole eyeball, shrinks until they become much smaller than natural. Whilst these two last changes in the condition of the eyeball are comparatively of frequent occurrence in the strumous disease, I do not remember to have seen a single instance of either resulting from remittent ophthalmia.

In the next lecture I will offer you a few observations upon the causes and treatment of remittent ophthalmia.

ON THE REMEDIAL EFFECTS OF LEMON-JUICE IN RHEUMATISM, AND ON SOURCES OF FALLACY CONNECTED WITH ITS USE.

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It is now nearly three years since I proposed to treat rheumatism by the administration of lemon-juice. This plan having been greatly applauded by some, while it has been condemned by others, I feel myself called upon, as the proposer of the remedy, to offer a few remarks, which I trust may have the effect of in some measure reconciling those discrepancies in result that would seem to have prevailed up to the present time. The very striking and marked advantage which I derived from treating with lemon-juice certain cases comprised under the generic term rheumatism, was a fact which, taken in connexion with its occasional failure, early produced, in my mind, a conviction that, under that term, we included diseases essentially different, and only similar in producing the same ultimate pathological results. In a short notice, which appeared in *THE LANCET* some months ago, I alluded to the probability of the above explanation applying to this difficulty, and my attention has been since directed to the determination of those points of difference in rheumatic cases which might indicate to us those amenable to the lemon-juice treatment, and those in which we cannot hope to observe its beneficial effects.

The first rheumatic cases in which I tried this remedy were of the acute kind, and I very soon discovered that the more chronic forms were not so readily relieved by the same treatment. Acute cases were, however, sometimes, though but rarely, obstinate in recovery. These resisted other remedies subsequently administered, and ran the usual course of several weeks, and though they seemed to prove that lemon-juice had done as much good as anything else, they still left unexplained why acute cases quite as severe, nay, far severer, had been relieved in a few days only. It is highly probable that this difference in result may sometimes arise from causes we can scarcely hope to detect, but such instances will probably be rare, and, in most cases, I believe the difficulty is to be cleared away.

Among the cases admitted from time to time into Guy's Hospital, I have had opportunities of satisfying myself that acute articular rheumatism is frequently complicated by the presence of three conditions, which tend to keep up the disease, and so to interfere with the favourable action of lemon-juice. These are,—1stly, Syphilitic rheumatism. 2ndly, Gonorrhœal rheumatism. 3rdly, A pseudo-rheumatic affection occurring in connexion with purulent discharges not necessarily gonorrhœal. Over these pathological conditions lemon-juice exerts no favourable influence.

Now not only may the above-mentioned complications interfere with the success of the remedy, but I have seen it exhibited in the last described, where the whole of the rheumatism present might in all probability be correctly attributed to the existence of a purulent discharge from the vagina, and where no remedy whatever produced a favourable influence, till recourse was had to treatment directed to the cure of the discharge.

The true nature of cases such as these is very apt to be overlooked; and I shall therefore here give an instance showing the necessity of attending to the point in question:—

Ann B—, aged thirty, was admitted into Guy's Hospital Oct. 13, 1852, suffering from what appeared to be chronic rheumatic gout. When young she enjoyed good health, and commenced to menstruate when thirteen years old, and has always been regular. Has been married four years, and had

a child about two years after marriage. Soon after her confinement, she had an attack of rheumatism affecting the joints. The pains in the head, before complained of, and which had continued up to this time, now ceased. This attack rendered her incapable of performing her household duties, and it continued to the time of her admission.

State on admission: Joints of extremities much swollen, and very painful on pressure. There is a copious yellow discharge from the vagina, but she denies ever having had gonorrhœa. Respiratory and heart sounds normal. Tongue clean, appetite good, bowels open. Pulse 84. To take iodide of potassium, three grains, in mint water, three times a day. Cod-liver oil night and morning.

18th.—Complains of hæmorrhoids; much the same. Six leeches to the anus. Linseed poultice to the part affected.

25th.—No improvement in the pains in the joints. Guaiacum mixture, one ounce three times a day. Disulphate of quinine, two grains; acetic extract of colchicum, one grain; powdered ipecacuanha, two grains: mix, and make into pills; to be taken night and morning.

29th.—Pains not at all relieved, but the medicine purges her. To discontinue the present medicines, and to take chalk mixture, one ounce, after each liquid stool, till diarrhœa cease.

Nov. 1st.—Pains no better. Diarrhœa soon left her. Lemon-juice, three ounces, three times a day.

8th.—No better. The vaginal discharge still continues. Compound tincture of guaiacum, half a drachm; compound tincture of camphor, half a drachm; mucilage mixture, one ounce, three times a-day. Dover's powder, eight grains every night.

11th.—Is no better. Soda poultice to the part affected. Continue medicine.

15th.—Is much the same. Benzoic acid, five grains; compound tincture of camphor, half a drachm; mucilage mixture, one ounce, three times a day.

22nd.—No improvement. Compound iodine julep, one ounce, three times a day. Dover's powder, five grains, every night. Turpentine liniment.

Dec. 4th.—Is no better. Continue the medicines. From this date baths and iodine friction were tried up to

Jan. 3, 1853.—Shoulders and arms are now rather less painful. Pulse 76, full and soft. Tongue clean. Bowels relieved once daily. Sleeps better at night. Conium mixture three times a day. Omit baths.

13th.—Pains of limbs still continue. The discharge from the vagina is profuse. Powder of cubebs, one drachm, three times a day.

17th.—Is decidedly improved. The swelling and tenderness of joints less. The discharge from the vagina less. Bowels regular.

From the last date given, this case rapidly got well; but, as will be seen, neither lemon-juice nor any other remedy afforded relief till the profuse purulent discharge was checked. The whole case was characterized by symptoms approaching to the subacute form; and it therefore would not have been selected from what I already knew as one likely to be much benefited by lemon-juice. The observations I have now made on the sequel of the case, will, however, I trust, be regarded as a step in advance, and serve to establish it as a more definite type of a class of cases which we shall in future at once exclude as unfit for treatment, either by lemon-juice, or any other of the ordinary remedies employed against rheumatism, but easily relieved when their true pathology is ascertained.

From what I have advanced, it will be observed, that I consider lemon-juice the antidote to the true rheumatic diathesis; and that I expect to account for failures in treatment, by detecting either complications, or complete pathological differences.

I have already given a case illustrative of the latter character, and I wish now in addition to direct attention to two other forms of disease belonging to the same class, which I have seen mistaken for rheumatism, and treated by lemon-juice, without the least benefit being derived. The first of these is the pseudo-rheumatic affection sometimes observed during the course of Bright's disease. Though the pathology of this affection is as yet but imperfectly understood, still the symptoms and progress differ sufficiently from those of true rheumatism to enable us to draw a distinction; and I believe we may now fairly add another distinctive mark in the fact that the disease in question is not benefited as true rheumatism is by the exhibition of lemon-juice. I have seen the remedy here fall into temporary disrepute till the mistake was detected. The other form of disease I would allude to, and which is perhaps characterised by as severe torture as any of those yet treated of, is observed in connexion with spinal de-

formity. Here the pains are most extreme, and vary in intensity according to the health of the individual. Of course lemon-juice cannot here be expected to benefit the patient, though its credit as a remedy has often suffered owing to its administration in such pseudo-rheumatic cases.

ON THE USE OF CHLOROFORM IN A CASE OF INFANTILE CONVULSIONS.

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SINCE it is important that all examples of the application of a new remedy should be placed on record, whether the result has been successful or not, the following case, in which a young infant was kept under the influence of chloroform for a period of sixty hours, merits publication.

Mrs. R— was confined of a fine male child, March 19th, Some little time after her confinement both her breasts became the seats of mammary abscess, hence the infant was compelled to have recourse to artificial food, which, however, did not appear to disagree with it. On Friday morning, April 29, it was seized with a slight convulsion, which recurred on the evening of the same day, and, during the three subsequent days, it suffered from three or four fits daily, each attack continuing about twenty minutes. The fits gradually became more severe; some continued three or four hours without remission, though not very violent; others, which usually woke him up from sleep, when he uttered a sharp scream, were much more severe, though of shorter duration. Of these latter ones the child appeared to have an instinctive dread. Ultimately the fits were unceasingly present whenever the child was awake. During the first two or three days the child's bowels were a little confined, and afterwards the motions became rather slimy and greenish, but no obvious source of irritation could be detected. There was no feverishness or heat of head, except during the more violent fits, and even then the scalp was less hot than might have been anticipated at the commencement. The Fontanelle was neither raised or depressed, but towards the end of the convulsive attacks it became decidedly depressed.

The congestion and lividity produced by the fits gradually increased, and, owing to the difficulty of giving nourishment, the child soon began to lose flesh. The quick succession of the convulsions sometimes made it impossible to give food for twelve hours together.

A leech was applied to the temple, warm baths employed, mild alterative doses of mercury with chalk and compound ipecacuan powder, administered internally, along with other remedies calculated to allay irritation and remove any irritant likely to be lodged in the bowels; but none of these remedies appeared to have the slightest influence either for better or worse. Under these circumstances, since the child was rapidly sinking, Dr. Bardsley and myself determined to have recourse to chloroform. I commenced the use of it at nine o'clock on the evening of Friday, May 8th. The child was then in a violent convulsion, which had continued for several hours. I folded a thin muslin handkerchief into a hollow funnel-shaped form, and after dropping half a drachm of chloroform into the hollow cavity, I inverted it over the nose of the convulsed infant, holding it about an inch from the face, so as to allow a free current of air to reach the respiratory organs. In about two minutes the convulsion gave way, and the child went to sleep. The effect of the chloroform passed off in a few minutes, when it was again applied, and thus the child was kept quiet for some hours.

I soon found that by slightly releasing the infant from the influence of the chloroform, but without allowing the convulsions to regain their power, it was possible to give a supply of food, which was swallowed eagerly and with great facility. This alone was an important advantage gained from the chloroform, since previous to its administration the child was obviously sinking from inanition.

For some hours I administered the chloroform myself, but afterwards entrusted it to an intelligent nurse, who was instructed to apply it the moment the child exhibited any movements indicating returning consciousness. This treatment was continued without a moment's interruption, until nine o'clock on the subsequent Monday, when the use of the chloroform was suspended, the infant having then been under its influence sixty hours, sixteen ounces having been used. Its appearance was now decidedly improved; its flesh was

more firm, and the sunken eye and livid countenance were exchanged for a much more healthy aspect. The convulsions exhibited no disposition to return, and up to the present period (May 30) the infant has enjoyed perfect health.

In this case I have not the slightest doubt that the chloroform was instrumental in saving the patient's life; I can scarcely conceive recovery to have been possible without its aid. No injurious effects, however trivial, appeared to accrue from its use, and I am satisfied that, if necessary, we could have employed it for a much longer period without evil consequences.

It is of course important to ascertain to what class of convulsive attacks this new remedy is applicable. In the present instance, though the condition of the patient was masked at its commencement, in its latter stages the disease assumed the adynamic type. It is obviously in such cases that we should be most likely to obtain benefit from the combination of the stimulating and sedative properties of the anæsthetic agent. It is a curious circumstance that such a modified use of it as allowed of the action of the muscles of deglutition, was nevertheless sufficient to control the convulsions.

June, 1853.

OBSERVATIONS ON THE LATE ENDEMIC FEVER AT CROYDON.

By GEORGE BOTTOMLEY, Esq., F.R.C.S.

I CONSIDER the sanitary measures, as carried out in Croydon, of national importance. The doings of the Croydon Board of Health having been attended with most disastrous consequences to life, health, property and trade, too much publicity cannot be given to them, to prevent other towns from falling into a similar mistake. The Board of Health at Croydon has evidently entertained an erroneous opinion that the medical profession, as a body, are opposed to any and all sanitary improvements. I therefore deem it necessary to remove such a feeling; for, on the contrary, they are desirous and hail with delight any proceeding that will improve the public health. Upon the completion of the tank for the supply of water to the town, a dinner took place at the Greyhound, Croydon, at which forty or fifty gentlemen, principally members of the Board at Croydon and their friends, and some gentlemen connected with the London Board, attended. Upon that occasion there was not a medical practitioner connected with Croydon present. The truth was, that the charge for the dinner was 21s., and the medical men of Croydon thought it too much; and, indeed, it appeared to them rather intended to make it exclusive. At that dinner one of the gentlemen from London, in returning thanks for his health having been drunk, alluded to the absence of the medical men of the town, which he said evidently arose from their dislike to sanitary improvements, for it would no doubt remove fever, &c., and that medical practitioners would be at a discount—in short, there would be but little for them to do. The remark was as unfortunate as it was illiberal.

The tubular system of drainage, as carried out in Croydon, has proved a most marked failure from the very commencement to the present time. In order to lay the pipes at the backs of houses, the workmen, there not being an overlooker to direct them, when they came in contact with old drains and cesspools, scattered the contents about, thereby saturating the earth with their contents. When the rain came, accompanied with a high state of temperature, poisonous gases were exhaled from the earth. This with the network of small pipes taking very tortuous courses, occasioning stoppages in all directions, both in the premises of private dwellings, as well as in the public streets; the getting rid of those obstructions, for which the pipes were removed and the contents pumped up into the main streets, and the sewage allowed to find its way along the gutters, throwing off poison as it went, the surface-water drainage allowed to remain undisturbed, and the open gratings pouring forth smells of the vilest character. Not only were the abominations permitted to remain, but their course cut off, and their contents allowed to percolate the earth; and the receptacle for the sewage is close to the town, and the ditches in its neighbourhood, filled with the sewage, pouring forth more stinks and more poison; and the contents of that receptacle, sold as manure, is carried through the town in the night, and allowed to be put into a hole which is open; so that there were not only one or two causes, but many. These may be thus summed up:—The disturbing of the old drains and cesspools; the escape of sewage in private dwellings, and the pumping of it up into the public streets, arising from the stoppages frequently occurring in the numerous small pipes