In order, then, to cure the first of these kinds of cataract, "we must discharge a portion of the aqueous humour, and either supply its place by injecting distilled water," or leave it to nature to supply a secretion made more healthy by the administration of certain saline remedies. To cure the second kind of opacity, we must supply the place of the discharged humour with a solution of a different density, containing albumen; or, as in the former case, leave to nature the production of a more albuminous secretion.

In the foregoing extracts I have presented the substance of Sir David Brewster's paper, which seems to have attracted but a small amount of attention from those practically and specially engaged in ophthalmic medicine.

I have now notes of a great many suitable cases treated by "the saline plan," but regret that I cannot add that any of my patients appear to have received benefit from its use. It occurred to me, however, that by combining some form of iron with the saline some good might be done. I have accordingly made trial of various preparations of the kind, and fair results have attended my trials; but I cannot say that I have succeeded in removing opacity when it has proceeded to the extent related by Sir David—namely, the formation of striæ; yet I am confident that in some few instances I have delayed its further formation, and prevented it passing beyond the incipient stage. Whether the disease in such cases is permanently arrested time alone will reveal.

I have no intention of occupying valuable space by following Sir David throughout in his speculations. It is sufficient to know that there remains much to be made out and many points to be cleared up before the truth can be ascertained. The practical bearing of such valuable experimental researches as those of Dr. Richardson, Dr. Mitchell of America,* and others, must, doubtless, take us many steps towards a rational interpretation of the disease, and ultimately, it is to be hoped, help us in its treatment. Early failure in the powers of life is, as we know, a direct associate of cataract. This seems to have struck Sir David Brewster when he observes: "It may arise from the general state of the health." But if the change be frequently one associated with anæmia and lowered powers of life in some form or other, should we reasonably expect to find much good resulting from the administration of salines, pure and simple?

Dr. Richardson's late experiments seem to give an answer to this question. He believes that cold and salines produce a similar action on the animal body. "Salines," he says, "act only by one process, that of removing from the nervous centres and the body at large so much caloric, which they take up and augment to a given extent, then cause fluidity; and as they retain the same fluidity and heat until they are excreted, so they carry off as much caloric as they have seized, and definitively reduce the temperature." This may be shown experimentally by freezing a frog, when the lenses of the eyes at once become entirely opaque. Again, if one drachm of a fluid solution of chloride of ammonium (sp. gr. 1.150) be injected subcutaneously into the dorsal sac, the lenses are quickly rendered opaque, which "at once shows an identity of action between cold and salines."

If such experiments prove anything, it is this, that *à priori* we have not much to look for in this direction, and that the uncombined use of salines, such as Sir David recommends, will not be found useful, but, on the contrary, may often aggravate the disease. So much, then, for the saline treatment of cataract.

I will now turn to the second proposal—namely, that of evacuating the aqueous humour by repeated paracenteses corneæ. This has been practised by more than one surgeon, and with a varied amount of success. Dr. C. Sperino,† of Turin, published in 1862 an account of forty-five cases of cataract operated upon by him by evacuation of the aqueous,

* Dr. Mitchell was the first, I believe, to give us the "Synthesis of Cataract." In addition to the "sugar cataract," he considered that he had made out other forms, as the "saline cataract," &c.; and he believed he had fairly demonstrated that the cataract he had induced in different animals "was a purely physical osmotic change."

† Sir D. Brewster, in a letter to me, notices the work of Sperino in the following terms: "Since my paper was read, I have received a volume of 300 pages from M. Sperino, of Turin, on the cure of numerous diseases of the eye, especially cataract, by evacuating the aqueous humour. He seems not to have seen what I had written on the subject." Dr. Sperino apparently takes a rather different view of both cause and effect in cases in which he has employed tapping. He believes that the cataractous condition much depends on some disturbance in the intra-ocular circulation; that even a congested state of the choroid may produce opacity of the lens; and that by resorting to early tapping the pressure is relieved, and the opaque fibres regain their transparency. The operation consists in making a small puncture with a grooved needle near the margin of the cornea, or at its junction with the sclerotic, and allowing the aqueous to slowly drain off.

and in which he tells us "cures were effected in some, and in others the sight was much improved."

Dr. Chas. Reymond, of Paris, has given this plan a trial in a variety of cases, in cataract and other forms of disease, with, as he tells us, a large amount of success; and a year or two ago I remember having read a similar statement in one of the journals from the pen of a gentleman practising in India, who spoke in the same high terms of the benefits of the operation in his hands. My own experience is neither so great nor so favourable. I have now made trial of this method in some twenty cases, without any advantage accruing to my patients. In those instances in which I thought I had succeeded in benefiting my patients and arresting the progress of the disease, I found I was mistaken, for after a lapse of time they returned to me in a confirmed cataractous condition, which nothing but extraction could be expected to cure. In the cases of several individuals at the hospital, I repeated a paracentesis, some twenty or thirty times in most cases, and in one, a compositor, thirty-five times, but this ended in complete nuclear cataract. I am unable to refer to a single case as yet that has appeared to receive permanent benefit from this mode of treatment. I admit that the cases selected by myself for a trial may not have been so exactly suited for the operation as those which fell under the care of Dr. Sperino and others.

The subject, however, is so thoroughly interesting as one of surgical and scientific inquiry, that it will seriously engage my attention, as it will no doubt also that of others whose professional engagements or scientific pursuits may afford them motive and opportunity.

Bedford-square, March, 1868.

IODINE AN ANTIDOTE TO STRYCHNINE;

AND ON

THE IMPROPRIETY OF PRESCRIBING QUININE OR STRYCHNINE IN COMBINATION WITH TINCTURE OF IODINE.

BY HENRY WM. FULLER, M.D.,

SENIOR PHYSICIAN TO ST. GEORGE'S HOSPITAL.

IN the course of my practice it has often occurred to me to prescribe a mixture containing quinine or strychnine, together with tincture of iodine. No chemist to whom I have spoken on the subject has been aware of any incongruity in the mixture, and few have reported any difficulty in dispensing it. Last summer, however, Messrs. Twinberrow called my attention to the fact that it is impossible to dispense a mixture containing quinine and tincture of iodine without an immediate deposit of an insoluble iodide of quinine, which is precipitated—according to the degree of concentration of the mixture, and to the sequence in which the ingredients are mixed—either as a fine brown powder or in large flakes of a dark brown colour. More recently, while seeing a patient in consultation with Dr. Williamson, of Mildmay-park, I suggested the administration of a mixture containing a drachm of the liquor strychniæ, two drachms of dilute hydrochloric acid, and two drachms of tinctura iodi. Mr. Young, the chemist of Ball's-pond-road, to whom the prescription was sent, observed that a dark flaky precipitate was formed on the addition of the tincture of iodine, and wrote to me, saying: "In whatever sequence the ingredients are mixed, I find that the whole of the strychnine is precipitated by the tinctura iodi; indeed, so strong is the affinity between these two ingredients that the two fluid drachms of tinctura iodi are capable of decomposing six fluid drachms of the liquor strychniæ, producing an insoluble compound of iodine and strychnine."

With a view to test the accuracy of this statement I have repeated Mr. Young's experiment, and I find it in every respect strictly correct. If one drachm of tinctura iodi is added to a solution of three drachms of liquor strychniæ in four ounces of water, the mixture speedily becomes colourless and almost loses its bitterness, and at the same time a dark-brown flaky precipitate of iodide of strychnia takes place. The addition of iodide of potassium, or a large quantity of spirit, will not serve to prevent the precipitation.

Now it is obvious that, for medicinal purposes, a mixture in which such a precipitate occurs must be almost valueless. The patient not only loses the benefit of the quinine or strychnine, but of the iodine also. It is not unreasonable, therefore, to

lay down as a rule, that tincture of iodine ought not to be prescribed in a mixture containing either of the above-named alkaloids. Probably a similar reaction would take place with other alkaloids, but of these I have no experience.

Another question of practical importance arises out of this observation: May not a dilute solution of iodine be advantageously given as an antidote in cases of poisoning by strychnine? Neither in Dr. Taylor's work on Poisons, nor in any other work which I have had the opportunity of consulting, do I find the slightest reference to iodine as an antidote to strychnine; but if a drachm of the tincture of iodine of the Pharmacopœia suffices to precipitate and render insoluble no less than a grain and a half of strychnine (three drachms of the liquor strychniæ), it is difficult to resist the conclusion that, if cautiously administered, iodine may prove a valuable and efficient remedy in cases of poisoning by strychnine.

Manchester-square, March, 1868.

GUNSHOT WOUND IN THE HEAD.

INJURY TO BRAIN WITHOUT SEVERE SYMPTOMS;
RECOVERY.

By F. J. GRAY, Esq.

On November 18th I was called to J. W—, aged twenty-one, who had been accidentally shot by a bullet from a revolver. On examination, I found that the bullet had entered an inch above the lobe of the left ear, from before upwards and backwards; blood was oozing from the wound and ear; he was very faint, but not totally insensible. I enlarged the opening, and found part of the bullet (which I extracted) wedged in the hole of the bone; it appeared cut off by the edge of the bone. I also extracted six pieces of bone which were in the skull, and passed the probe in search of the other portion of bullet. The probe appeared by its own weight to go two inches into the brain, and also two inches under the skull backwards. I considered, with Messrs. Taunton and Balderon, surgeons, who were with me, that the symptoms did not warrant my further searching for the remaining portion of bone. When extracting a small piece of bone, a gush of dark grumous blood came, evidently from rupture of the lateral sinus. His pupils acted but sluggishly. I applied wet lint to the wound, irrigation, and afterwards ice-bags to his head. He slept for several hours, and when roused he was in a semi-conscious state. Had great difficulty to swallow a teaspoonful of water; but shortly afterwards was very sick, vomiting his supper, which he had had just before the accident. During the vomiting a great gush of blood came from the skull. His feet being cold, hot bricks were applied; no paralysis. Twelve hours after the accident he had much recovered from the semi-conscious state, and was able to swallow; had a little milk and water. Passed the catheter; drew off a pint of urine. Gave three grains of calomel, and a saline draught an hour afterwards, which he vomited, when another gush of blood came from the skull. Gave him a mixture of sulphate of magnesia, nitrate of potash, tartar emetic, and tincture of hyoscyamus, every four hours. His pulse was feeble, and intermitting between 60 and 67. He took with difficulty a few teaspoonfuls of milk and water. The wound having begun to heal, I broke up the adhesions, gave him three grains of calomel, and ordered saline draught in the morning.

Nov. 20th.—Had a comfortable night; bowels not open; vomited saline draught. Gave him five grains of calomel, half a grain of jalap, afterwards two drops of croton oil; bowels open. Opened the wound, and applied oiled silk.

21st.—Much improved; good night; not so drowsy; pulse quiet and regular; sat on the edge of the bed contrary to orders, and passed a large quantity of urine. Diet: milk and water, blancmange, and weak broth. Mixture continued; linseed-meal poultice to the wound.

22nd.—Doing well; bowels not open.

23rd.—Complained of heat in the head; tongue yellow, and rather brown in the centre; bowels not open; bowels not been opened for several days (having been wrongly informed the day before). Gave him calomel and saline draught; the tongue being more brown and dry, and pulse feeble, I stopped the tincture of antimony, and substituted ammonia. In the evening, the bowels not having been opened, an enema was given, after

which a large quantity of offensive fæces came away, which relieved him very much. Beef-tea, broth, and jelly being given, the tongue gradually became moist and clean.

24th.—Much better; no pain or giddiness in the head even when out on stool, to which he gets up contrary to orders.

Dec. 1st.—Much better; has had meat several times during the week; has sat up in easy chair several times; walked fifty yards to the cab to go home.

3rd.—No ill effects from journey home; wound gradually granulating up; dressed with calamine ointment.

12th.—Wound healed up; goes out for a walk.

Jan. 15th, 1868.—Has gone to work, he being an apprentice to an iron moulder and fitter, and resumed his place as a member of the band, and plays a brass instrument (of course, contrary to my advice).

The case, being a serious one, has gone on from first to last well, although he has been a most obstinate patient, and would do very indiscreet things contrary to my orders, but apparently with impunity.

By the probe going direct into the brain with its own weight, my impression is that the remaining part of the bullet has gone into the brain-substance, although no severe symptoms have arisen, or has he ever complained of headache or giddiness. I cannot help thinking, however, that he will suffer from these symptoms.

Rugeley, March, 1868.

ON A CASE OF TRIPLETS.

By ALEXANDER CRICHTON, L.R.C.P., &c.

As cases of triplets are extremely rare, they generally excite a certain amount of interest amongst professional men. The following notes of a case which occurred to me the other day may, perhaps, be worthy of a place in THE LANCET.

On the 18th February, a young woman, Margaret C—, aged twenty-five, called on me and complained of pain in the back and down the limbs. As she had not been able to sleep from it for a few nights, I gave her a dose of tincture of opium, and promised to call next day, which I did, and found the pain abated. She told me she was in the family way, and, judging from her appearance, I concluded she was at her full time, as the distension of the abdomen extended to the sternum. She, however, told me that she was not more than five months, and this, together with the extreme distension and tensidity of the abdomen, led me to expect something abnormal; nor was I mistaken, for about six o'clock on the morning of the 22nd, I was rung up to see this girl. I got there about half an hour afterwards, and found her sitting in bed, and between the legs lay a dead fœtus of five months. I tied the cord and removed the child, and, after waiting a time, I found the abdomen still very much distended, the placenta firm, and no hæmorrhage. As no pains were recurring, I left a message to send for me if anything should occur, and, accordingly, about ten o'clock, I was again sent for. I returned and found the pains coming on regularly, and, finding symptoms of convulsions, I sent for Mr. Brown, with whose valuable assistance the labour was got over. The membranes ruptured about a quarter past ten, and the second child was born at half-past ten. After tying the cord, &c., and waiting a little time, finding that there was still another child, a dose of extract of ergot was given, and about twelve o'clock the next child was born enveloped in the membranes. Some difficulty was experienced in the birth of the last child on account of the placenta of the former children being impacted between the head of the child and the symphysis pubis; but when this was overcome the placenta came away and the labour was over. There was very little hæmorrhage during the labour. Since the delivery she has had a slight attack of puerperal fever; but under the use of calomel and opium it has entirely subsided, and the patient is now well. I may add that the children were all females.

Mortlake, March 11th, 1868.

NORTH OF ENGLAND OBSTETRICAL SOCIETY.—The annual meeting of this Society was held on the 11th ult. at the College of Medicine, Newcastle-on-Tyne, when the following officers were elected:—President: Dr. Charles Gibson. Vice-presidents: Dr. Canney, Mr. T. C. Nesham, Mr. Russell, and Mr. Pyle. Committee: Drs. Banning, Denham, May, Messrs. Hope, Angus, and Ridley. Honorary Secretary: Dr. Ellis, Elswick West-terrace, Newcastle.