

of hydrogen $\frac{1}{2}$ % to 4 %, tannic acid solution, silver nitrate solution, lime water and creolin solution. This last was the only one which seemed to have any peculiar value. In strength of one-half drachm to two pints up to one drachm to a pint, it appeared to remove foul odor and especially to check bleeding. There were certainly several cases which, after careful irrigation with the creoline solution, failed to show the presence of blood in the movements which had previously contained considerable quantities. Reverse peristalsis was demonstrated by the appearance of the odor of creolin in the mouths of two patients and of the fluid itself in one.

For persistent vomiting nothing proved better than lavage, using two pints of normal salt solution.

We tested a few drugs and preparations. Panopepton, whiskey and brandy have been already mentioned. Fat-free tincture of digitalis was used in thirty-one cases, and with good effect. Seven cases of pneumonia were given the large initial dose of five or ten minims. The results seem to justify that rather heroic treatment. Tannalbin in doses of five to ten grains every two to four hours was efficient to check bloody movements which did not yield to any other treatment. Patch's "miscoline" — with the formula, in each fluid drachm zinc sulphocarbolate $\frac{1}{16}$ grain, salol $\frac{1}{16}$ grain, bismuth subcarbonate 1 grain, calomel $\frac{1}{16}$ grain, and pepsin $\frac{1}{4}$ grain — was tried on twenty-three out-patient cases with satisfactory results. A similar trial of a petroleum emulsion, much exploited as an intestinal antiseptic, was not at all successful.

Two or three relatively sure signs of approaching death were noted. One was the appearance of crown vomitus which did not contain blood or react to the hemin test. Another was the appearance of purpuric spots or streaks on the abdomen. In one case these very largely disappeared after the administration of a solution of gelatine, but the baby died. A third fatal sign is a drop of the temperature to 95° F. or thereabouts. There was no great difficulty in getting the temperature back to normal, but the babies died none the less surely.

Our postmortems taught us many things. Nearly every case of severe bowel trouble was proven to be, pathologically, acute follicular ileocolitis, with very marked thickening of the lower bowel, swelling of the follicles and often some ulcerations, and fatty degeneration of the liver. One case was met which justifies our clinical term gastro-enteritis, for all the inflammation was in the stomach and upper duodenum. The heart muscle was not usually much affected nor were the kidneys seriously involved. Two diagnoses of persistent ductus arteriosus and persistent enlarged thymus gland as causes of death deserve passing mention and later a more extended report.

I trust that this incomplete presentation of the work of the Boston Floating Hospital may prompt your continued helpful interest in it. During the past summer nearly a thousand people visited us, but of these barely a score were physicians. We should be glad to have you come, either morning or afternoon, that you may see just how the babies you send down are cared for.

A CASE OF RETINAL HEMORRHAGE IN A PATIENT OF SEVENTY-THREE. TREATMENT BY THE FARADIC CURRENT. COMPLETE RECOVERY.¹

BY HASKET DERBY, M.D., BOSTON.

IN 1898 Professor von Reuss of Vienna published in the *Graefes Archive*² an article on the use of the Faradic current in certain affections of the eye. It was entitled, "New Experiences in the Electric Treatment of Inflammatory Affections of the Eye." Using sometimes the hand of the operator, but more generally a small flat copper disc or conductor, held on the head by a strap and resting on a layer of wet cotton applied to the eye, he employed a comparatively feeble current daily for periods varying from ten minutes to half an hour. This form of treatment was used in cases of scleritis, iritis, iridocyclitis, consecutive vitreous opacities and intraocular hemorrhages. In many instances it appeared to do good, its analgesic action in iritis being found to be particularly frequent and satisfactory.

In closing his account of the application of the interrupted current to the treatment of intraocular hemorrhage, Von Reuss says:

"It consequently appears that fresh bleeding into the anterior chamber and into the vitreous is favorably influenced by the Faradic treatment, but it is well not to forget that fresh effusions of blood, for instance after operations, often spontaneously and quickly disappear. Electricity can scarcely influence hemorrhages in and under the retina."

In spite of this discouraging statement it occurred to me to try this treatment in a case of extensive retinal hemorrhage that came under my care during the past winter. It was the first case of the kind I had ever submitted to a prolonged course of treatment. For therapeutics there had seemed little place in this affection, particularly when occurring in advanced years, and betokening a probably atheromatous condition of the cerebral arteries. I had for many years advised such patients to leave the recovery to nature, and assured them that the injury might, to a certain extent, be repaired. Unless a fresh giving way of the vessels occurred, a portion of the lost vision might ultimately return. I had generally, for the sake of doing something, advised a course of iodide of potash, and warned the family physician of what was to be apprehended. After that I dismissed the case from my mind. In the comparatively infrequent event of my seeing the patient again, months or years afterwards, I had rarely found much improvement, especially when the hemorrhage involved the macular region. The eye was permanently disabled.

Mrs. Blank, aged seventy-three, had been under my observation since 1884. She had a considerable degree of myopia, combined with astigmatism. Her vision, with the best neutralizing glass, had never been brought up to the normal standard, but remained about seven tenths in each eye. From time to time, generally once a year, she had visited me for the purpose of having her reading glasses adjusted, her myopia and astigmatism, as well as visual acuteness, remaining substantially the same.

¹ Read before New England Ophthalmological Society, Nov. 11, 1902.

² A. f. O., Bd. xlv, S. 398 et seq.

Oct. 9, 1901, she came in, complaining that there was failure of vision in the right eye, this having lasted since the previous July. I was then absent from the country, so she failed to consult me. There had been little change since the trouble first appeared. With this eye, which was externally normal, the vision was now less than one tenth, and she complained that the letters of the test card appeared "spotted." The other eye remained as before. On dilating the right pupil, numerous retinal hemorrhages came into view. They were scattered over the entire fundus. The largest hemorrhage was in the macular region, and was quite extensive.

The application of the Faradic current was commenced Oct. 17, and used, ten minutes at a time, three times a week, up to May 26. A single absence from the city of ten days, occurring in the early spring, formed the only interruption. Small doses of iodide of potash were also administered during all this time. The peripheric hemorrhages began to absorb much more quickly than the macular, being substantially gone before the large one in this situation had shown any signs of yielding. The first improvement was, therefore, in lateral vision, but central before long followed suit. Dec. 20 vision had risen to nearly five tenths, Jan. 7 to six tenths, and on Feb. 7 the macular region was nearly free. Slight vitreous haziness long persisted, but finally cleared up. May 26 vision was nearly seven tenths, all the letters on the line being correctly made out, though with some effort. As this was her original vision, and nearly equaled that of the other eye, treatment was now suspended. My last ophthalmoscopic examination was made Sept. 2, and was conducted in the country; the light available was not very good, but as far as I could see there was not a single spot of hemorrhage in the fundus, a very slight grayish discoloration alone marking the site of the more extensive blood patches. About Oct. 15 the patient visited me at my office here, and I found vision nearly eight tenths, slightly more acute than I had ever found it before.

This is but a single case. The recovery may have been due to other causes than the use of the current. It is possible that it might have occurred spontaneously. But it is surely an unusual instance of a *restitutio ad integrum* in a person of over seventy, of very full habit and in an aggravated case. The treatment is so simple and so easily applied that I trust other members of the profession will follow it up and report their results.

The little single-cell battery used was the "Baltimore." Leach & Greene of this city are ready to furnish the special connections for the eye, and it is only necessary to inform them whether a single eye or both eyes are to be treated.

In conclusion, a single word on the analgesic properties of the Faradic current. This fact, that local pain is thereby often relieved, is hardly appreciated at its proper value. Von Reuss has again and again found this to be the case in iritis and irido-choroiditis.

Speaking of the interrupted current he says (*loc. cit.*): "Its principal effect is that of relieving pain; in this we are seldom disappointed. The effect is generally promptly witnessed, sometimes indeed in a surprising manner. Thus I once summoned for my lecture a patient with iritis, whose presence was

most important to me. On the way he was taken with severe pain and blepharospasmus, and it seemed impossible to exhibit his case. I used the Faradic hand; in a minute and a half he was free from pain, could open his eyes and be exhibited to a crowded audience without difficulty." He goes on to say that the pain generally returns in a few hours, and that the length of the painless interval varies directly with the length of the application of the current.

Meanwhile we note the same effects from its use in other departments of surgery. Dr. Douglas Graham³ has found it of great value in mitigating the pain caused by the breaking down of adhesions of the joints. Complete relief has followed, twenty seconds after the use of the battery had been commenced.

According to Beard and Rockwell, teeth have been extracted and felons and buboes opened with little or no discomfort to the patient while a strong current was passing through the affected parts. If this be true, may not opiates be, to a certain extent, discarded in the treatment of painful inflammations of the eye? The experiment is certainly worth trying.

VESICAL APPEARANCES IN RENAL SUPPURATION.

BY EDGAR GARCEAU, M.D., BOSTON,

Surgeon to Out-Patients in St. Elizabeth's Hospital and in the Free Hospital for Women, Boston.

IN an article by the author in the BOSTON MEDICAL AND SURGICAL JOURNAL,¹ attention was called to the appearances of the bladder in cases in which the upper urinary passages are inflamed and suppurating. The conclusions then drawn were these: The first characteristic that attracts notice is the frequency with which some alteration, in the nature of ulceration or swelling, occurs about the orifice of the ureter on the side corresponding to the lesion in the kidney above. Thus, in the author's list of cases, which were nine, in eight this alteration was seen. In Brown's² list of eight we were not informed with exactness in all of the cases as to this point. In three, however, there was positive assurance of such alteration. In three others either no direct reference was made with regard to it or we were left in doubt. Thus in eleven out of the seventeen cases there was direct evidence given by cystoscopy, which at least excited suspicion that the upper urinary passage on the corresponding side was diseased.

It is fair to assume, therefore, that if lesions are present at or about the ureteral eminence, we may expect to find lesions on the upper urinary tract on that side. These observations are quite in line with those observed in tuberculosis of the ureter and kidney. Numerous observations are now on record which confirm this statement. The analysis of the six cases in which this alteration was not observed was interesting. In one case the bladder was so swollen as to forbid deductions being drawn as to the relative size of the eminences. In two cases the bladder was normal and the infection was

¹ *Fractism as an Analgesic in the Loosening of Joint Adhesions. The Practitioner*, London, August, 1893.

² Vol. cxlvi, No. 23, p. 589, and Vol. cxlvi, No. 24, p. 627.

³ Johns Hopkins Hospital Reports, 1901, Vol. x, Nos. 1 and 2. From H. A. Kelly's clinic, Baltimore.