

# THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XCVII.—THURSDAY, NOVEMBER 1, 1877.—NO. 18.

## A FEW PRACTICAL SUGGESTIONS CONCERNING EXTRACTION OF CATARACT.<sup>1</sup>

BY HASKET DERBY, M. D., BOSTON.

THE operation for the extraction of senile cataract bids fair always to remain the capital operation of ophthalmic surgery. With the possible single exception of iridectomy for glaucoma, more interest centres in it and more consequence is attached to its result than in the case of any other form of instrumental interference with the eye, while its far greater frequency of occurrence renders its careful study of the first importance.

Very few of us, I imagine, have followed blindly in the beaten track. From time to time improvements have been suggested and modifications of accepted methods brought forward. We have held fast to the good and dismissed, after a passing trial, that which has failed to stand the test of time or to bear the brunt of statistics. Much interest would attach to the recorded experience of a candid surgeon if, after fifteen or twenty years of full practice, he should publish a truthful history of his successive changes of opinion, and give his reasons for the course he at present pursues. Time is wanting, and this is not the place, for any such exhibition on my own part. I desire here simply to state two or three points in connection with the operation of extraction, concerning which I have been led materially to change the views I once held.

And first, *as regards the use or non-use of mydriatics as preparatory to extraction.* The old arguments for the instillation of atropine before extraction are familiar to all; there would be more room for the knife in its passage across the anterior chamber; its point would be less likely to catch in the iris, and a wound or dialysis would consequently more seldom follow; the secondary dilatation that ensues on the reëstablishment of the anterior chamber would tend to keep the edge of the iris clear of any fragments of corticalis that might remain behind, and lessen the likelihood of a closed pupil and a secondary cata-

<sup>1</sup> The accompanying paper was intended to be read at the annual meeting of the American Ophthalmological Society in July of the present year. The railway disturbances, then in progress, prevented a quorum of the members from assembling.

ract. Despite these arguments, it is needless to call your attention to the fact that many surgeons have long given up the use of atropine before operating. So far from the passage of the knife being rendered more easy, it was found that its point could be more readily directed against a background of iris than when this was wanting, and that a wound or dialysis was even less likely to follow when the pupil was contracted than when the point of the knife, at its entrance or exit, was met by the swollen periphery of a dilated pupil. And the state of mydriasis, returning as it does after the aqueous humor is resecreted, was found directly to encourage prolapse of the iris after extraction and healing in of the iris tissue in the corners of the wound, where extraction had been performed according to the method of Von Graefe. Such considerations have induced me, as they have others, to relinquish, for some years, the use of atropine under these circumstances. But I do not stop here. Acting on the hint given by Wecker, I have gone over to myotics, not, however, following his example by using them just before and just after the operation, but instilling a few drops of a one per cent. solution of eserine into the eye two or three hours before the extraction. At the time of the operation I then find a considerable myosis, which interferes in no way with the extraction, and returning, like mydriasis, with the reëstablishment of the anterior chamber, exerts on the iris a degree of traction that reduces to a minimum the danger of its healing in to the corners of the wound, and, in my own experience, seems to render this complication less frequent than formerly. This contraction of the pupil readily yields to atropine, should it be found desirable to employ it during the after-treatment. Although cortical remains are, on the first examination, found to occupy the area of the pupil, the edge of the iris may generally be made to separate from them with readiness after repeated instillations of atropine. Secondary cataract ought theoretically to follow more frequently when its use is so long postponed. Practically I have not found this to be the case.

At first I used the eserine at the time of the operation. But though the application of this drug, when pure, is unattended by pain, patients sometimes complained of an unpleasant thrill or "jumping sensation" in the eye, occurring at intervals for several hours after the operation. As yet, the only eserine fit for use is that prepared at the Pharmacie Vée,<sup>1</sup> in Paris, and the solution should be made at the time of use.

The second point to which I would call your attention is the *employment of an anæsthetic*. With us, in Boston, the use of ether at extractions has been, for at least a dozen years past, a matter of course. Patients have generally asked for it; if not, it has been pressed upon them. Freedom from all pain has been held up as an argument to

<sup>1</sup> 42 Rue du Faubourg St. Denis.

decide the wavering, while the immobility thus secured was to render the performance of the surgeon's task more easy and more certain.

And here again experience must, I think, have taught most of us that theory and practice by no means go hand in hand, and that the state of anæsthesia is apt to throw appreciable obstacles in the way of a successful extraction. The amount of congestion induced in many by the inhalation of ether encourages hæmorrhage, and the anterior chamber often fills with blood before the division of the capsule, when it would otherwise have remained free. The patient's will being in abeyance he is no longer able to render that assistance to the surgeon which is of so much importance. Every needed motion must be given the eyeball by traction with the fixation forceps. In profound anæsthesia the muscles are relaxed, the eye loses its tension, and the difficulty of removing cortical fragments is considerably increased. At the conclusion of the operation the surgeon is unable to satisfy himself by roughly testing vision as to whether he has performed his task thoroughly, and the patient loses the moral support of once exercising his newly acquired sight, — a support that has cheered many a one through the long dark days of convalescence. Finally the nausea that, in spite of every precaution, will often ensue, the retching and vomiting that sometimes endure for hours, cannot but have an injurious effect on the eye so recently laid open, besides rendering the patient unable to take nourishment and lowering his *morale*.

Who that has used anæsthetics has not over and again realized these objections to their employment? Who, after visiting Continental *cliniques*, has not envied the facility with which operations are performed on conscious subjects, and watched with interest their convalescence? I have long wondered at the results obtained by certain European ophthalmologists, prominent among whom I will cite Arlt and Wecker, — results which, I frankly admit, those we have as yet obtained in Boston fall far behind. And, on witnessing their operations last summer, and following, to some extent, their cases, the question naturally suggested itself as to whether, after making all due allowance for great dexterity and constant practice, their success is not in part due to the avoidance of anæsthesia. I am personally convinced that it is.

We are met with the stock objection that the sensibilities of the European peasant are blunter and his power of enduring pain greater than is the case with the nervous American; that those of the present generation in this country have a full realization of the facility with which anæsthesia may be obtained, and of the harmlessness of ether; that argument is therefore of little avail, as people will generally insist on its use. Practically this is wholly untrue. For upwards of a year I have (with two exceptions) performed all my extractions without ether, and have found my patients amenable to reason, when the disad-

vantages attending its use were once explained to them. Nor have I experienced any special difficulty from their restlessness at the time of the operation; rather, indeed, have I been struck by the small amount of pain they appeared to suffer. In my limited experience it has even seemed as if the senile eye, affected by cataract, lost a portion of its normal sensitiveness, so many have assured me that the pain they felt was comparatively trifling. I have not in a single case found it necessary to use my fixation forceps after the section was completed, and, though invariably performing iridectomy, cannot find a single dialysis recorded.

In operating, therefore, without ether or chloroform we claim that congestion is avoided and hæmorrhage lessened; that the eye can be directed by the voice instead of by the touch of the operator, thereby decidedly facilitating the exit of the lens; that the eyeball retains its fullness, rendering the manipulation for clearing the pupil of corticalis much easier; that the answers of the patient, as to how much he sees, give otherwise unattainable information as to the clearness of the pupil; and that subsequent nausea is avoided, enabling the patient to take needed nourishment, not only before but even soon after the operation, and to dispense the earlier with the services of an attendant, — in hospitals a decided advantage. Last, but not least, his *morale* is maintained; he knows he sees, and looks forward with confidence, instead of doubt, to the removal of the bandage.

In view of the objections already cited, and fortified by the advantages just enumerated, I confidently assert that the routine employment of anæsthesia, in the extraction of cataract, is not consistent with the largest attainable measure of success.

The final question I would raise is, *How soon, after the performance of the operation, shall the lids be separated and the first examination made*, if there be no reason for supposing that anything has occurred to complicate the healing process?

I was never inclined to agree with those who advised a hasty inspection of the eye on the day of the operation, but deferred this usually to the end of twenty-four hours, changing the bandage and lint and washing the outside of the eye within twelve hours, but never separating the lids. The next day I would simply glance at the cornea by the light of a single candle, but not use oblique illumination till the third or fourth day. Gradually I came to find that the eye did quite as well if the lids were allowed to remain closed two and even three days, the dressings of course being changed daily. And, as time went on, a new fact forced itself repeatedly on my notice: that in certain cases where the healing process was interrupted by inflammatory complications, the first pain, lachrymation, or discharge followed accurately on the first separation of the lids, however carefully managed and however hasty

the examination. The case might have been doing perfectly well for three or four days, no swelling of the lids, lachrymation, or undue discharge might have been present or the slightest pain experienced, the eye then for the first time opened and rapidly surveyed by a weak light, no lens being used and no trial of the vision made, and within a few hours pain would occur and marked symptoms of inflammation be present. This happened so frequently that it became impossible not to connect the examination and the inflammation as cause and effect. Acting on this belief I kept prolonging the time that I allowed the eye to remain unopened, and now rarely make my first examination before the morning of the seventh day.

Supposing the extraction to have been performed in the early morning, my present practice is to remove the bandage at about five in the afternoon and bathe the outside of the lids with tepid water, a fresh bandage and lint being then applied. The severe pain that, in some exceptional cases, occurs a few hours after the operation I have often seen yield to gentle sponging with iced water, a single application being generally sufficient. The next morning I again remove the bandage. If everything is doing well, if there is no swelling, undue secretion, or lachrymation, the bandage is reapplied, and after that changed but once a day. Thus the case is allowed to go on for six days, if everything seems, from external inspection, to be progressing favorably. On the morning of the seventh day I open the lids. Those who are themselves accustomed to make an earlier examination are often astonished to see how little evidence of the operation is present, a trifling redness in the immediate vicinity of the wound being sometimes all there is to be seen. Atropine may now be used if circumstances render it advisable; many cases, however, do not require it at all. The eye is now closed and allowed, for a day or two, to remain so, but a shade is substituted for the bandage, the room still being darkened. The redness about the wound, slight at first, will be observed for several days after opening steadily to increase before it begins to disappear.

The above course of treatment is applicable only to cases where the healing process may be presumed to be progressing normally. I believe that the longer the examination is deferred the more likely the patient is to do well, and this not on the ground of any preconceived theory, but simply from experience. I am aware that numerous theoretical objections might be alleged to such a method. It could be argued that the secretions of the wound and the blood left in the conjunctival sac, being unable to escape, might decompose and act as sources of infection. These and other objections may be brought forward on theoretical grounds. To those who urge them I would simply suggest a fair trial of the plan itself, believing they will in the end themselves find that the longer they leave the wound undisturbed, in contact with

and guarded by the covering provided by nature, thus sealed and protected from any germs of contagion with which the atmosphere may be infected and which the exposure of a single instant might attract, the more success they will meet with in the after-treatment of extraction.

---

## THE ABUSE OF MEDICAL CHARITIES.<sup>1</sup>

BY ORVILLE F. ROGERS, M. D.

AN examination of the reports for last year of all the larger medical charities of the city shows that 92,977 patients were treated gratuitously in the dispensaries and out-patient departments of the hospitals. The reports of the out-patient departments of the institutions which were in existence ten years ago show that the number treated by them during the past year was about three hundred per cent. greater than in 1866. Not only has the number of beneficiaries of the older institutions increased at this extraordinarily rapid rate, but new charities have been founded and well advertised, and are now, in the language of the reports, doing a "great work." The result of this is that more than twenty-seven per cent. of the population of Boston are treated by the dispensaries and out-patient departments of hospitals. This is an increase far out of proportion to the growth in population or the increase in the number of those relieved by other departments of the various charities. These facts are calculated to produce the impression that the number of medical paupers is greater than it should be, and that there is something wrong in the system of medical relief under which such a state of things can exist. An examination of the mode of administration which obtains at present tends to confirm this impression.

Before admitting a patient to a hospital the authorities satisfy themselves by a critical examination of all the circumstances of the case that the applicant is a person upon whom charity may be properly bestowed. The character of a certain portion of every community renders this course necessary if the charitable contributions of the public are not to be squandered upon professional vagabonds, or that slightly more respectable class who, though able to support themselves if obliged to do so, have neither sufficient self-respect nor honesty to restrain them from availing themselves of every easily obtained charity. Though all this is well known, I have been unable to learn that any efficient, restrictive supervision of the out-patient departments and dispensaries is exercised by the managers of these institutions in Boston. Practically they are open to all. When a charitable institution is administered in such a manner as to *invite* fraud, it is not strange that its consultation

<sup>1</sup> Read before the Norfolk District Medical Society.