

prominence by surgical writers, I think, has heretofore been given this modification of the circular amputation suggested (as Dr. Otis tells us in the renowned circular No. vii. of the war department) by Lacanchie in 1850. Besides affording easy access to all the vessels requiring ligation, it has the additional advantage (as pointed out by Surgeon Boutecou, U. S. A.) of permitting the examination of the femur as high as the trochanters before disarticulation, and as before quoted from Furneaux Jordan, the wound is less severe; is in a measure more remote from the trunk; the great bulk of muscles lying on the inner side of the femur are not disturbed, and from this non-interference with this mass of muscles less liability to septic infection follows; the vitality of the flaps is less endangered; the wound is as favorable for drainage as any other, and its performance even by a novice is a matter of comparative ease. In both of my cases a circular division of the limb was made, cutting through skin, muscles and bone on the same plane. The knife was applied about an inch and a half or two inches below the gluteal fold. Immediately on dividing the bone the vessels were secured. A vertical incision was next made beginning above the great trochanter and carried down the outer aspect of the thigh to intersect the circular incision. The remainder of the femur was removed as nearly as possible subperiosteally, the knife being used only in separating the muscular attachments to the trochanter and the division of the capsule. Notwithstanding the muscles were cut so near their origin, the skin afforded ample covering. There was absolutely no active hæmorrhage in either case, except from one or two small articular vessels.

The general adoption of the method of Mr. Loyd will, I believe, rob this amputation of one of its greatest dangers, and will confer an inestimable boon upon the unfortunates who are to suffer exarticulation at this joint, as well as contributing greatly to the comfort of the surgeons who are called upon to make it.

Accompanying this paper are three sketches. No. one (1) shows the method of removing the limb, Nos. two (2) and three (3) the application of the tourniquet.

EFFECTS OF MURIATE OF COCAINE ON THE ORBICULARIS PALPEBRARUM.

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In the report of the following cases it will be my endeavor to simply state the facts as briefly as possible, leaving the profession to judge as to the efficacy of this alkaloid in eye surgery.

In the first case a two per cent. solution was used, but in the nine following ones it was increased to four per cent. No question could be entertained as to its purity, as it came from Merck's, and its peculiar action on the orbicularis corroborated this belief.

CASE I. Machinist, æt. 34. F. B. (Emery) deeply

imbedded in the right cornea, of three days' standing. The solution was dropped into the eye every three minutes for fifteen minutes when the body was dug out with a spud. He stated that the operation did not hurt much.

CASE II. Very severe trichiasis, in which Arlt's operation for transplantation had been previously performed, and in which the tarsal margins were very much notched, and most of the cilæ were still inverted. The proposed operation was to remove the anterior tarsal margin of each upper lid, with all of the hair bulbs. James H., æt. 33, was taken before the class at St. Vincent's Hospital. Three drops were instilled into the eyes every three minutes for twenty minutes, and besides this eight drops were twice injected subcutaneously at the outer canthus of the right eye. A narrow scalpel was thrust into the edge of the lid for the purpose of splitting it, but he kicked, bellowed and struggled so terribly that the operation had to be completed under ether.

CASE III. Removal of portion of prolapsed iris, in case of ulcerative keratitis. W. S. æt. 16 years, very strumous; has had "sore eyes almost since infancy." Three drops were put into the eye every three minutes. When the first application was made the orbicularis resisted one's efforts to open the lids, but on each renewal less resistance was experienced until it was found easy to drop them into the eye, even without touching the lids. She did not flinch when the speculum was applied, but when the iris was seized with the forceps she complained very much, but we succeeded in excising it.

CASE IV. John E. S., æt. 34, a traveling salesman. Very small chalazion at tarsal margin of left upper lid. Two drops were used in the eye every three minutes, and dropped on the outside of the lid while he occupied a recumbent position. He was told that while this would not cause the operation to be painless, it would very much mitigate it by benumbing the parts, thereby removing about three-fourths of it. When first dropped into the eye he flinched and contracted the lids greatly, but after a few additional applications, he soon suffered its use without any resistance, and in twenty minutes the pupil was widely dilated, and the eye much more widely open than the other. Knap's lid clamp was then applied, and the little growth was removed while the patient puffed and blew like a porpoise. When the operation was finished he remarked that it was a great blessing that a remedy was used which removed three-fourths of the pain, as the remaining one-fourth nearly killed him.

CASE V. Emma S., æt. 17. Strabismus convergens of over six lines, requiring operation on both internal recti. The usual 4 per cent. sol. was used every three minutes for nearly forty-five minutes until the pupils were widely dilated, and the resistance of the orbicularis most thoroughly overcome; but no sooner was the conjunctiva grasped, than she struggled and complained most terribly, and this she kept up during the whole length of the operations on both eyes, and she vomited during the following afternoon and night.

CASE VI. William W., æt. 50. This was a patient on whom an extraction for cataract had been

made six months before, from the right eye, which had been followed by irido capsulitis and closed pupil; in the left he had cataract and iridodonesis. The operation was an artificial pupil in the right, and a preliminary iridectomy in the left. When first operated on for cataract he contracted the lids so tightly when the speculum was placed in the eye, that it was removed until ether was administered and the operation finished. This was an excellent case in which to test this remedy. The drops were applied every three minutes for over twenty and until the left pupil was well dilated. After the third time of using them he became much less touchy about his eyes, and very soon they were used without any winking at all. The speculum was applied to the left without any resistance on his part, but when the conjunctiva was grasped by the fixation forceps he winced considerably, and when the iris was seized he jerked, and tore it loose from the forceps; again was it grasped and cut off while we scolded him most unmercifully for his nonsense. More drops were used on the right eye when a similar experience was again met with, and the operation was finished with De Wecker's scissors.

CASE VII. Patrick H. B., æt. 48, machinist. Removal of small piece of steel from the cornea. Two drops instilled every three minutes for fifteen, and body dug out without any difficulty. On questioning him he said that it did not hurt much; hardly as much as usual. We must remember, though, that machinists are so in the habit of having bodies removed by their fellow workmen, that these are not of the best class to test the virtues of this remedy.

CASE VIII. Re-insertion of style in nasal duct. Mrs. C., æt. 49, had submitted to the operation for stricture of the duct, and had had a style inserted without taking an anæsthetic, two months previously, and had made but little complaint during the operation; but on its removal, every ten days or two weeks, she always said it pained her on its insertion. This was doubtless owing to the peculiar curvature of the passage. The drops were used very freely for the usual length of time, and no force was exerted in replacing said style, but she experienced no difference whatever in the slight pain usual to its insertion on former occasions.

CASE IX. Removal of half of the prolapsed iris in lacerated wound of the cornea. John H., colored, æt. 52, was wounded with a brickbat two weeks before, and had been kept quiet with iced compresses and atropia locally, before I saw him. The eye was still much inflamed, and quite a chemosis was present. The cocaine was used every three minutes for twenty minutes, when the speculum was inserted. He flinched but little during this part of the operation, but when the iris was removed he complained very much.

CASE X. Enucleation of the left eye-ball for sympathetic irritation. Ellsworth C., æt. 20, lost the vision in the left sixteen years ago, from wound through cornea and ciliary body. Three weeks ago he commenced losing the sight of the right eye. He was urged to have the eye removed under the influence of the cocaine; was told that though it would

not entirely relieve pain, it would very much mitigate it. He was treated with it every three minutes for over half an hour, but he declared that he did not feel any difference in the eye, though it was noticed very early that after the use of the first few drops he ceased to contract the lids, and the medicine was applied without having to open the eye with one's fingers. He made no complaint when the speculum was adjusted, shrank a little while fixing the eye, and urged me to hurry up while the muscles were being taken up. The operation lasted two and a half minutes, and when completed he asked if the eye was out, and said that "It did not hurt half as badly as he had expected; but as he had never even had a tooth pulled, did not know how much such cases did usually hurt one." He seemed dazed during the operation, and doubtless would have acted similarly had no cocaine been used.

From the above experience it is my opinion that as an anæsthetic in eye operations this alkaloid has been exceedingly overrated, and that many of the cases which have been reported would have done almost as well had it not been administered. I have been strikingly strengthened in this opinion quite recently, for while waiting for the arrival of the medicine (which took nearly four weeks to procure) an unusual number of cataract cases presented themselves for treatment, all of which were operated on without any anæsthetic whatever, and, doubtless, had it been used in these, as was my intention, I also would have gone into ecstasy concerning its "wonderful" efficacy. I have used it in a very large number of cases where my object has been simply to get a view of the whole of the fundus of the eye, and for this purpose it seems to have no superior, as its effects pass away more rapidly than even homatropine is used; but it does not seem to sufficiently relax the accommodation to justify its use in the exact measurement of anomalies of refraction. While using it for the purpose above-mentioned, I found that its effects upon the palpebral portion of the orbicularis are much greater than are those of other mydriatics, as in a very large majority of the cases in which it is used the eye is opened much more widely. Again, its action upon the sphincter of the eyelids points to its desirability in cataract extractions, as they undoubtedly tolerate the speculum much better than when it is not used. I would also suggest its use in tonic blepharospasm. My next door neighbor, who is a throat specialist, tells me it has done wonders with the nasal mucous membrane. So, taking these things into consideration, it seems to be a valuable agent in a limited field. It is to be hoped that the newspaper puffs which it is receiving on every hand may continue, as by this means we can tell our patients that we are going to resort to that "precious" remedy concerning which they have, doubtless, read so much; then many will submit to operations without the aid of ether who would never have consented before. Faith in the remedy will have its effect on others, and by the time this has found its true position, in all human probability something else will arise to take its place.

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