once and subsequently twice daily. If this were to be done at first with a strong ointment considerable irritation might ensue, but by beginning with a weak ointment and gradually increasing the strength, little or no irritation is experienced. The treatment conducted in this way may be continued for a considerable time with little or no discomfort to the patient, and with a very decided effect in clearing up the corneal opacities, more especially if these are of recent origin.

As an agent for the relief of pain in diseases of the eye, as a soothing application in hypersensitive and irritable eyes, and, above all, as the most powerful means at our disposal for the clearing up of corneal opacities, dionine is destined to occupy an important place in ocular therapeutics.

REFERENCES.

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THE LOCAL ANAESTHETIC ACTION OF STOVAINE.

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DURING the last three months I have submitted stovaine to a continuous series of trials, both in private and on patients attending the clinics of Dr. Orwin and Mr. Chichele Nourse at the Central London Throat Hospital. I have to acknowledge my indebtedness to these gentlemen for permission to make the trials and to publish the results obtained.

The cases in which I have used stovaine have all been cases of minor operations on the nose, throat, and ear. Trials were made with solutions of the strength of 5 per cent., 10 per cent., 15 per cent., and 20 per cent., but it was soon found that a 10 per cent. solution was sufficiently strong for most cases, and that a 5 per cent. solution was too weak. Tampons of cotton-wool were soaked in the solution, squeezed fairly dry, and, in nose cases, inserted into the nostril so as to lie in contact with the mucous membrane of the part to be operated upon; in throat cases the throat was swabbed with cotton-wool on a probe wetted with the solution; and in the few ear cases, a small plug of wool properly moistened was inserted into the external auditory meatus.

ANALYSIS OF 57 CASES.

Nose.

Galvano-cautery to the inferior turbinal body...	22 cases.
Removal of polypi by snare...	11 "
Iditto, by curette	1 case.
Removal of anterior half of middle turbinal, in the usual way, by forceps and snare...	6 cases.
Removal of anterior end of inferior turbinal	3 "
Removal of posterior end of same...	4 "
Removal of septal spur by sawing	1 case.
Stovaine applications for examination and testing	6 cases.

Throat.

Galvano-cautery to hypertrophied lingual tonsil	1 case.
Uvulotomy	1 "
Piece of naso-pharyngeal growth removed for examination	1 "

Ear.

Polyp removed by snare	1 case.
Curettage of middle ear (granulations)	2 cases.

In comparing the anaesthetic action of stovaine with that of cocaine, on the whole, the impression formed was that in the newer substance we have a local anaesthetic fully as powerful as the old. In not a single case was there any complaint or indication of toxic phenomena.

In one case in which a septal spur was removed by sawing under nitrous oxide and ether, and in which a tampon charged with stovaine and adrenalin solution had been placed in the nose, the operation lasted longer than had been expected, and the patient came round before the sawing was finished, but the local anaesthesia was so perfect that the patient felt no pain at all. It is obvious that in cases where a general anaesthetic is to be used in addition to the local anaesthetic, stovaine, which produces no depressant symptoms, is preferable to cocaine.

In curetting granulations in the middle ear stovaine was applied to the surface to be scraped, and a better anaesthesia obtained than with cocaine used in the same way. As is well known, to ensure complete anaesthesia

for this little operation a subcutaneous injection into the so-called "zone of Troeltsch" is necessary.

Several of the patients had had a former experience of cocaine, and all, with one exception, preferred the anaesthesia of stovaine. One of these had suffered from toxic symptoms with cocaine.

Thus far it would seem that stovaine is much to be preferred to cocaine for local anaesthesia, but an accident made me acquainted with an unpleasant result. A female patient had come for the application of the galvano-cautery to the inferior turbinates, and was prepared for operation in the usual way by the insertion of tampons soaked in a 10 per cent. solution of stovaine into the inferior meatus of the nose. Pressure of other work prevented me from attending to her for about forty minutes, and at the moment when, the tampons having been removed, I was about to apply the cautery, the electric current gave out, and the affair had to be postponed. She returned to me four days later, complaining of a free watery discharge from the nose, which had come on half an hour after her previous visit. On examination I found, to my surprise, that there was superficial sloughing of the mucous membrane of the inferior turbinates, and of the corresponding parts of the septum on both sides, just where the tampons had been lying. There was, however, but little reactionary swelling, and with suitable treatment the slight ulceration was healed in about ten days. Inquiry among others of the series of patients elicited the fact that many had suffered from "colds in the head" for some days following the application of the new agent.

In order to test this observation several other trials were made. Applications of a 10 per cent. solution of stovaine were made for varying lengths of time to the nasal cavities, and the nose examined at intervals of every two or three days for some time after the application. It was found that the amount and extent of tissue destruction varies with the length of time of application. In a case where the duration was ten to fifteen minutes nothing happened. In another of twenty minutes' duration very slight superficial sloughing occurred. So that it would seem advisable not to allow a contact of longer than fifteen minutes, a length of time quite sufficient to ensure satisfactory anaesthesia.

Although the strength of the solutions used for injection into the tissues and into the spinal canal (0.5 per cent.) is much less than that employed in the foregoing tests, it would be advisable, in view of my findings, that observers should note whether or not any irritant effects arising from the stovaine occur after the operation is over. In the case of the spinal cord in particular care should be exercised, for, if the drug exerts a destructive or irritant effect on mucous membranes, it stands to reason that a delicate nervous tissue may also suffer from an intimate contact with stovaine, even when it is used in very weak solution.

My results, summed up, are as follows:

1. Stovaine equals cocaine in local anaesthetic action.
2. Stovaine does not induce general toxic symptoms in ordinary anaesthetic doses.
3. Stovaine, like cocaine, induces ischaemia of erectile mucous tissues.
4. Stovaine should not be left in contact with mucous surfaces for longer than fifteen minutes, lest its powerful irritant action be followed by sloughing and ulceration.

It is proper to suppose that the last rule is of less importance when some destructive action is the aim of the surgeon, as in cauterizing, etc.

PROFESSOR KOCHER of Berne will deliver the annual address of the Cardiff Medical Society on Friday, May 25th. The subject chosen is Graves's disease.

The new operating theatre at the Royal Devon and Exeter Hospital, which was opened on May 4th, by Mrs. Nosworthy, of Dawlish, its munificent donor, has been carefully designed to meet all modern requirements. The theatre can be heated rapidly, and the ventilation, by electricity, is equally sensitive; the inlets for ventilation are packed with cotton-wool. The floors are fireproof and paved with terrazzo, the walls are lined with opal tiles, and there is a domed ceiling of the same construction. The top and side lights are double glazed and there are anaesthetic and sterilizing rooms adjoining. The fittings of the theatre are all nickel-plated. The cost was about £1,500.