MYANESIN ELIXIR IN 150 CASES OF CATARACT EXTRACTION*

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VITREOUS loss in cataract surgery is an unpredictable complication and even in most experienced hands can occur without warning. An excited, nervous, uncooperative patient is often the cause of this catastrophe, and many ophthalmologists have tried to eliminate the risk by using muscle relaxants.

Clark (1949), Kirby (1950), Roche (1950), Farquharson (1951), Cordes and Mullen (1951), and Agarwal and Mathur (1952) have used curare with success as a muscle relaxant in cataract surgery. Roche and Farquharson do not quote precise figures, but the vitreous loss in the cases of Kirby and of Cordes and Mullen was 3 and 6 per cent. respectively, and in the series of Clark and of Agarwal and Mathur it was nil.

Recently another drug, "Myanesin", has been used as a muscle relaxant, but no adequate trials have been carried out with it in cataract surgery. Girgis (1953) claimed a reduction in vitreous loss but did not give the number of cases.

Present Investigations

In 350 cases of cataract admitted to the ophthalmic ward of the L.L.R. Hospital, Kanpur, 200 patients selected at random were given no muscle relaxant and served as controls, while Myanesin was given to the remaining 150. Most of these patients were of nervous temperament and uncooperative, or else uneducated, with language difficulty.

The drug was administered orally in 2-dr. doses one hour before operation. No special precautions were necessary before administering the drug. On the night before the day of operation as well as just before the actual operation, the blood pressure and intra-ocular pressure were recorded. The intracapsular method of extraction was employed in 130 cases and the extracapsular method in the remaining twenty.

Results.—Our studies of the 200 control cases indicated that the operation caused no significant alteration in the intra-ocular and blood pressure, but a loss of vitreous of varying degrees was sustained by 9 per cent. of patients.

In the group pretreated with Myanesin, on the other hand, 70 per cent. showed

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no change in the intra-ocular tension, 20 per cent. showed a reduction of 2-3 mm. Hg, and 10 per cent. a fall of about 4-5 mm. (Table I).

TABLE I
EFFECT OF MYANESIN ON INTRA-OCULAR PRESSURE

Cases Treated	No Change	Fall (mm. Hg)	
		2—3	4—5
150	105	30	15

There was also no significant variation in the pre- and post-operative blood pressure levels in the Myanesin group, and no vitreous loss was sustained. In the group pretreated with Myanesin which underwent intracapsular extraction, two patients sustained loss of vitreous; one was highly myopic and the other coughed violently during the operation (Table II).

TABLE II
LOSS OF VITREOUS

Method	Intracapsular 130	Extracapsular 20	Total 150
Loss of Vitreous	2	Nil	2

In all the patients who had pretreatment with Myanesin, the eyes were quiet, as the movement of the extra-ocular muscles was very much reduced, and they were completely relaxed. As the reduction in the tension was not appreciable, there was no difficulty in the delivery of the lens. It felt as if the vitreous "had gone to sleep".

There were no post-operative complications, no delay in the healing of wounds, and no effect on the ultimate vision.

Toxic Effects.—No toxic effects were noticed except in one patient, an old man of 80 years, who felt drowsy 15 minutes after the administration of the drug. During the operation he did not respond to questions until and unless they were put loudly to him, and his limbs were so paretic that they required support, but he recovered shortly after a stomach lavage.

Discussion

The results of the present study clearly indicate the marked ameliorating effect of Myanesin on the rate of vitreous loss in cataract surgery. A loss in 1.3 per cent. of cases is in marked contrast to 9 per cent. in the random sample, especially as the cases tested included many with predisposing features. The figures compare favourably also with these obtained for curare (0 to 6 per cent.), and affirms the claims of Girgis (1953) regarding the value of Myanesin in cataract surgery.

In considering the relative merits in cataract surgery of the two muscle relaxants, curare and Myanesin, one has to remember that this presents a three-tier problem, viz., of having a relaxed patient, of eliminating the factors of chance associated with the cooperation sought from the patient, and of having a reduced percentage of vitreous prolapse. Kirby and later Agarwal emphasized the utility of curare in producing this triple effect, but one cannot ignore that it is potentially dangerous and should only be administered by an experienced anaesthetist in a well-equipped theatre. Girgis has pointed out that similar triple-tier action can be achieved by Myanesin, and in addition Myanesin elixir is cheap and easy to administer.

It is felt that Myanesin can safely replace curare as a muscle relaxant in cataract surgery.

Summary

The results of cataract surgery in 150 cases pretreated with Myanesin and 200 cases not so treated are presented. It has been observed that Myanesin is a useful adjuvant in cataract surgery and compares favourably with curare in this respect. The percentage loss of vitreous in this series was only 1.3 per cent.

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