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CDR remained at 0.2. There was no adverse effect on ocular motility.

Comments

The surface area of the S2 model implant is 184 mm^2, and that of model FP8 or S3 for pediatric eyes or small globes is 96 mm^2. The surface area of our modified plate was estimated to be 123 mm^2. The IOP reduction is related indirectly to the surface area of the plate of the implant up to a certain limit.[4,5] The advantage of trimming the plate instead of using a pediatric-sized implant is that the surface area of the modified plate is larger than that of the pediatric-sized implant. Theoretically, it should provide better aqueous drainage than the pediatric-sized implant. By ensuring that the cut end has no sharp edges prior to insertion, the risk of conjunctiva damage is minimized. No damage to the conjunctiva was observed in our case. As this is only a single case that has been followed for only 1 year, longer follow-up of more cases is required to conclude that this procedure is safe and effective. Nevertheless, this option may be considered under special circumstances in Asian eyes since small globes are common in this population.

Key Words: Ahmed valve glaucoma implant, glaucoma, small globe

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Switching from Dorzolamide to Brinzolamide: Effect on Intraocular Pressure and Patient Comfort

Dorzolamide (Trusopt, Merck, Rahway, NJ, USA) was the first commercially available topical carbonic anhydrase inhibitor. Three times-daily dorzolamide significantly decreases intraocular pressure (IOP).[1,2] Another carbonic anhydrase inhibitor, brinzolamide (Azopt, Alcon Laboratories, Ft. Worth, TX, USA), can be used twice daily, thereby reducing topical or systemic adverse events and increasing patient compliance.[1–5] There are few reports about the hypotensive effect of switching from dorzolamide to brinzolamide.[3–5] We report the influence on IOP, incidence of eye drop-induced discomfort, and adverse events in glaucoma patients of switching from dorzolamide to brinzolamide.

Study Report

We enrolled 56 consecutive glaucoma patients (28 men and 28 women, 22 normal-tension glaucoma cases and 34 primary open-angle glaucoma cases) undergoing treatment with dorzolamide 1% eye drops for at least 3 months. All patients provided informed consent to participate in the study. The mean age (±SD) of the patients was 63.5 ± 12.1 years (range, 29–85 years). Patients were excluded if any ocular or systemic adverse events had been induced by dorzolamide treatment or if the width of change on IOP was more than 3 mmHg during the previous 3 months.

Patients were instructed to switch from three times-daily 1% dorzolamide to twice-daily 1% brinzolamide without a washout period. The average number of antiglaucoma eye drops used was 2.1 ± 0.7 (1–4 drops). During the study, no change was made in antiglaucoma eye drops except as specified. The mean period of previous treatment with dorzolamide was 20.5 ± 13.1 months (3–48 months). After the patient had switched to brinzolamide, IOP was measured every 1 to 2 months for 6 months with a Goldmann applanation tonometer at approximately the same time of day for each patient. Patients were asked to rate ocular discomfort induced by the eye drops before and 1 month after switching, using the following burning or stinging scale: 0 = none; 1 = slight; 2 = moderate; 3 = severe. Adverse events were also monitored by routine slit-lamp biomicroscopy and by asking patients about local and systemic conditions. Patients were asked at the end of each month after they had switched, "Which drops do you prefer, brinzolamide or dorzolamide?"

Variations in the IOP were evaluated using analysis of variance (ANOVA) and the paired *t* test. The patient comfort scores were compared using the Wilcoxon signed-ranks test.

In all 56 patients, the mean comfort score for dorzolamide eye drops was 1.1 ± 0.8, and that for brinzolamide

Table 1. Adverse reactions after switching to brinzolamide

Reaction	Number of eyes
Ocular adverse reactions	
Stinging	3
Blurred vision	2
Superficial punctate keratopathy	2
Foreign body sensation	1
Dryness	1
Hyperemia	1
Systemic adverse reactions	
Taste perversion	1

Table 2. Variations in intraocular pressure

Period	No. of patients	Intraocular pressure (mmHg)
Before switching	45	15.3 ± 2.4
1 month after switching	45	15.2 ± 3.0
2 months after switching	38	15.2 ± 2.5
3 months after switching	43	14.8 ± 2.7
4 months after switching	40	15.0 ± 2.6
5 months after switching	39	15.0 ± 2.3
6 months after switching	45	15.4 ± 3.1

eye drops was 0.2 ± 0.6, at 1 month after switching ($P < 0.0001$). At 1 month after switching, 50 patients (89.3%) preferred brinzolamide.

Adverse events are shown in Table 1. Eleven patients were excluded from the evaluation of hypotensive effects; eight could not continue brinzolamide treatment owing to adverse events, and three patients had not come to our hospital during the 6-month study for nonmedical reasons. There were no statistically significant differences in the IOP before or after switching (Table 2).

Comments

The ocular hypotensive effect of brinzolamide 1% after a switch from dorzolamide 1% has been reported to be equivalent at 8 weeks[3] and 3 months.[4] IOP after the switch remained at a level similar to that before the switch for a longer period of time (6 months) in the present study than previously reported.[3,4] Barnebey et al.,[5] however, reported that a switch from dorzolamide 2% to brinzolamide 1% resulted in a significant decrease in IOP of 0.8 mmHg after 3 months.

To strictly evaluate the influence of IOP and patient comfort, a double-blind, crossover study is needed. In the present study, the measurement of IOP and comfort were not masked, so this may be a source of bias. Because it was clinically difficult to set up a double-blind, crossover study, we used this design for the evaluation.

Brinzolamide 1% has almost the same hypotensive effect as dorzolamide 1% and can be used comfortably in patients with glaucoma. Less ocular discomfort and less frequent instillation are the potential advantages of brinzolamide.

Key Words: brinzolamide, dorzolamide, intraocular pressure, patient comfort, switching

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Statistical Analysis of Endogenous Uveitis at Tokyo University Hospital (1998–2000)

The distribution of diagnoses in patients with uveitis (intraocular inflammation) has been repeatedly investigated by many ophthalmologists to ascertain useful trends. These distributions are unique and differ according to time and place. We conducted a retrospective analysis of patients with endogenous uveitis who visited Tokyo University Hospital between 1998 and 2000. We analyzed the characteristics of endogenous uveitis in recent years through comparison with previous reviews.

Study Report

We obtained the records of 252 patients with endogenous uveitis who first visited the Uveitis Center of Tokyo University Hospital between 1998 and 2000. Of the 252 patients, 125 patients were men and 127 patients were women. Eighty-six patients visited the center in 1998, 81 patients in