Table I. V.A. on admission

V.A	Percent
N.L.P.	8%
L.P.	32%
H.M.	30%
C.F.-1/10	12%
1/10-4/10	14%
4/10-10/10	4%

Table II. I.O.P. on admission

I.O.P. mm Hg	Percent
10-20	58%
20-30	14%
30-40	16%
40-50	8%
0-4	4%

Table III. I.O.P. when the patients were discharged

I.O.P. mm Hg	Percent
10-20	84%
20-30	8%
40-50	4%
Enucleated	4%

trauma made up 2%. 36% of patients ranged in age from 0-10 years, 40% of patients were in the age range of 10-20 years, 14% ranged in age from 20-40 years, and 10% were over 40 years old.

Visual acuity in first examination was as follows:

L.P. 32%, H.M. 30%, C.F. to 1/10 12%, 1/10 to 4/10 14%, 4/10 to 10/10 4% and N.L.P. 8% (Table I). Intraocular pressure was 10-20 mm Hg in 58%, 20-30 mm Hg in 14%, 30-40 mm Hg in 16%, 40-50 mm Hg in 8%, and hypotony (0-4 mm Hg) in 4% (Table II). Thirty-two percent of the patients had vitreous hemorrhage, 20% had corneal laceration, 21% had macular edema and optic atrophy, 12%

Table IV. V.A. when the patients were discharged

V.A	Percent
N.L.P.	6%
L.P.	6%
H.M.	4%
C.F.-1/10	28%
1/10-4/10	22%
4/10-10/10	34%

had lens opacity, 8% had conjunctival laceration, 5% had R.D. and 2% had scleral laceration.

Reverse Marcus Gunn was positive in 34% and 34% of the patients did not cooperate for checking reverse Marcus Gunn. In 32% of the patients reverse Marcus Gunn was negative. In 68% of patients the iris was abnormal (fixed dilated pupil, angle recession, iridiodialysis) and in 32% the iris was normal. 88 percent of patients were male and 12% female.

RESULTS

Visual acuity and I.O.P. were checked when the patients were discharged. I.O.P. was 10-20 mm Hg in 84%, 20-30 mm Hg in 8%, 40-50 mm Hg in 4%, and 8% were enucleated (Table III). V.A. was 4/10-10/10 in 34%, 1/10-4/10 in 22%, C.F.-1/10 in 28%, H.M. in 4%, L.P. in 6%, and N.L.P. in 6% (Table IV).

Two patients with N.L.P. and 4+ reverse Marcus Gunn who had flat retina in echography went for A/C washout because they had medically uncontrolled glaucoma. In these patients I.O.P. seven days after medical treatment was 35 mm Hg. After surgical management V.A. was 4/10 in one and 6/10 in the other, and, reverse Marcus Gunn disappeared.

DISCUSSION

Previous studies have noted that traumatic hyphema is an injury of youth, with males at greater risk than females. Young males are traditionally more apt to engage in more violent activities.[3] In this study also, 88% were male and seventy-six percent were young. Many surgical techniques have been proposed for intervening in an eye with a hyphema and medically uncontrolled glaucoma.

These methods include: iridectomy,[4] trabeculectomy,[5]

clot expression,[6] phacoemulsification,[7] clot removal with automated vitrectomy instrumentation,[8] diathermy,[9-11] and pars plana vitrectomy.[12]

In this study two patients with complete hyphema had uncontrollable I.O.P., but they were N.L.P. and had 4+ reverse Marcus Gunn. These patients did not have any associated injury accompanying traumatic hyphema. A/C washout was performed. As a result V.A. improved and Marcus Gunn disappeared.

We propose that all of the N.L.P. patients with hyphema whose I.O.P. are not medically controllable can be candidates for the above mentioned surgical procedure.

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