

Ocular Trauma in Rapti Eye Hospital, Dang 1993 (2049-2050)

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Ocular trauma is one of the common cause (2.4) of Blindness in Nepal according to survey conducted by IIMG, WHO, Nepal Prevention and Control of blindness Project 1981. It is the major cause of unilateral blindness. 0.9% of population have signs & or history of ocular trauma. Blindness can be prevented if ocular trauma are treated immediately.

Keywords:

Ocular trauma, Fields, Home, Farmer, House wife, Cornea, Wood stick, Grass, Grain, Antibiotic, Unknown, Steroids, Milk, Medical Hall, Dhani & Jhankri, Blindness.

INTRODUCTION

Ocular injuries were frequently seen in my working period of 1992.

and I have decided to evaluate the different types of ocular injuries in 1993. Prof. Madan Prasad Upadhyay who was my teacher inspired me and I was involved in this work.

Rapti Eye Hospital established in 1986 in Dang district of Rapti Zone of Mid Western Region of Nepal. It was established by the joint venture of Nepal Netra Jyoti Sangh, Norwegian Church Aid, local Netra Jyoti Sangh and local people of Rapti Zone (Dang, Salyan, Rolpa, Rukum and Pyathan). People of this Zone are basically involved in agricultural works and this hospital situated in rural area provides services to the rural Nepalese people.

Total patients, total cases of injury, different

sites of ocular injuries calculated since the beginning of the hospital 1986 (2043) to 1993 (2050 Poush 18).

Ocular trauma of 1993 analysed in systematic order. Patients having ocular trauma were examined from history taking, treatment used before coming to hospital, visual acuity taken. Slit lamp examination and site of injury diagnosed. Cases were divided in three groups.

- A. Pt. having minor injury or healed injury were discharged after giving advice.
- B. Pt. who need follow up but not needed to hospitalized were asked for follow up.
- C. Pt. who need hospitalization were admitted and treated. Pt. who come for follow up or not are also noted.

The different pattern and important results are:

Table No. 1: The % of injury is more in this series than the incidence of ocular trauma noticed in Nepal Blindness survey 1981.

Year	Total Pt.	Total Case of Injury	% of Injury
1986	2013	50	2.5
1987	5211	159	3.00
1988	8329	303	3.6
1989	5231	350	4.2
1990	8700	310	3.5
1991	8825	196	2.2
1992	9383	468	4.9
1993	10117	454	4.4

The % of injury is more in this series than the incidence of ocular trauma noticed in Nepal Blindness survey 1981.

Table No. 2

Year	LID	Conj.	Cornea	Iris	Lens	Post.S.	Nad	Total
1986	5	4	3	-	-	-	5	50
%	10	8	6	-	-	-	10	
1987	6	41	10	1	1	-	10	159
%	3.7	25.8	62.9	0.6	0.6	-	6.3	
1988	12	82	20	2	1	-	-	303
%	3.9	27	67.9	0.6	0.3	-	-	
1989	6	46	19	1	3	-	95	350
%	1.7	13.0	56.8	0.3	0.9	-	27.1	
1990	5	115	127	3	-	1	59	310
%	1.6	37.0	41.5	0.9	-	0.3	15.8	
1991	19	52	119	3	-	2	-	196
%	4.0	27.0	60.0	1.5	-	1.0	-	
1992	19	159	274	5	4	-	27	468
%	4.0	33.9	54.0	1.0	0.8	-	5.7	
1993	46	131	246	26	27	11	23	454
%	10.1	28.2	52.2	5.8	6.0	2.4	4.6	

1. 43 Cases have F.B. Cornea.
2. 12 Cases have F.B. Conjunctiva.
3. 5 Cases have F.B. Lid.

Table No. 3

1993	Male	%	Female	%	Total
Jan.	27	57.5	20	42.5	47
Feb.	12	48.0	13	52.0	25
Mar.	33	68.5	19	36.5	52
Apr.	21	56.7	16	43.0	37
May	17	53.1	15	46.9	32
June	24	82.7	5	17.3	29
July	29	70.7	12	29.3	41
Aug.	18	47.4	20	52.6	38
Sept.	25	56.8	19	43.2	44
Oct.	17	50.0	17	50.0	34
Nov.	19	67.9	9	32.1	28
Dec.	24	51.0	23	48.9	47
Total	266	58.5	188	41.4	454

1. The incidence of trauma is more in male.
2. Incidence more in Jan., March, July, Sept, and December due to active involvement in agricultural works.

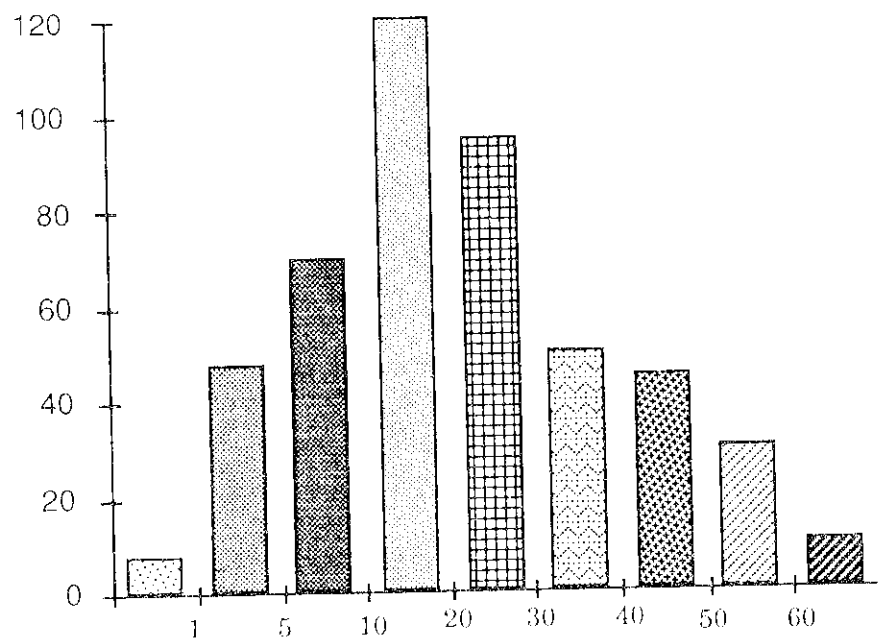


Table No. 4

Age Group	No. of Cases	%
Infants	9	1.98
Children 1-5 yrs	47	10.35
6-15 yrs.	70	15.41
16-25 yrs.	118	25.99
26-35 yrs	92	20.26
36-45 yrs.	46	10.19
46-55 yrs	39	8.59
56-65 yrs.	25	6.16
Above 66 yrs.	5	0.1
Total	454	100

The commonest age of ocular trauma 16-35 years.

Table No. 5
Showing Laterality

1993	RE	LE	BE	Total
No. of Cases	204	236	14	454
%	42.7	51.9	5.4	

Injury in LE > RE.
Injury in BE is rare.

Table No. 6
Different Corneal Lesion

Keratitis		Ulcer		Opacity		F.B.	Total
Tr.	Ntr.	Tr.	Ntr.	Tr.	Ntr.		
33	418	93	172	79	162	43	100
3.3	41.8	9.3	17.2	7.9	16.2	4.3	
%	%	%	%	%	%	%	

Incidence of traumatic Keratitis were more in August & September.

- 1: 9.3% case of injury lead to Corneal ulcer
- 2: 7.9% case of injury lead to Corneal Opacity.
- 3: 4.3% people have F.B. in Cornea.

Table No. 7
Occupational Variations

Occupation	Total	%
Farmer	145	32.1
House Wife	119	26.2
Student	93	20.4
Service	15	3.3
Labourer	7	1.5
Infants Children < 5yrs.	54	11.8
Business	4	0.9
Total	454	100

Incidence of trauma is more in Agricultural workers and house wife. Nepali house wife are mostly also Agriculture workers.

Table No. 8
Occupational Variations

Place	Total	%
1. None	208	45.8
2. Unknown Drops	146	32.1
3. Antibiotic	32	7.0
4. Herbal Preparation	28	6.1
5. Steroid	11	2.2
6. Milk	27	5.9
7. Other	9	1.9
Total	454	100

1. 45.8% Pt. directly come to hospital.
2. 32.1% Pt. used some unknown drop before come to hospital.
3. 7% Pt. use Antibiotic after trauma.
4. 5.6% Pt. use Milk after trauma.
5. 2.2% Pt. use Steroid after trauma.

Majority of patients who use unknown drops, (Antibiotic and Steroid drops from Medical hall) or drugs which are used by their family members.

Table No. 11
Person consulted before coming to hospital.

S.No.	Consulted Person	%
1. None	204	45.8
2. Medical Hall	127	27.9
3. Family Member	35	7.7
4. Self	32	7.0
5. Medical Doctor	17	3.7
6. Eye Center	18	3.9
7. Health Post	12	2.6
8. Dhumi / Jhankri	9	1.9
Total	454	

Majority of patients who go to directly or send by their relatives to medical hall and purchase some drops or Ointment and they use it.

1.9% Patients still belief on Dhumi/Jhankri.

Table No. 10
Time for Searching Treatment

Period of T.T	Total	%
1. Within 6 Hours	14	3.08
2. Within 24 Hours	78	17.18
3. Within 7 Days	199	43.83
4. Within 15 Days	69	15.19
5. Within 1 Month	22	4.84
6. Within 6 Months	30	6.60
7. Within 1 Year	16	3.52
8. After 1 Year	26	5.72

1. Very few Pt. come within 6 hours of injury.
2. Majority of Pt. come within 7 days.
Majority Pt. who use some drug from Medical hall and wait for the result for 1-2 days. If they are not cured, then only they come to hospital. Patient of far distance take time to travel. So they come within 15 days or months, usually come due to Corneal Opacity.

Table No. 11
Patient Follow Up

1. Pt. discharged after examination, who have minor injury or who are in incurable stage.	180	39.6%
2. Patients asked for follow up who need.	178	39.2%
3. Patients admitted for treatment	96	21.15%
4. Total Patients	454	100%
5. Actual patients asked for follow up	274	60.04%
6. Patients coming for follow up	169	61.6%
7. Patients defolter.	105	36.3%

Our of 274 patients, only 61% followed, rest 36.3% were defolter.

Table No. 12
Occupational Variations

1. Total Cases	454	
2. Incurable Blind	11	2.4%
3. Perforation	9	2.0%
4. Physical Assault	12	2.6%

In a year:

1. 2.4% of Incurable blind due to trauma came in hospital.
2. 2% cases of Injury were perforated.
3. 2.6% cases of Injury are due to physical assault.

Table No. 13
Prognosis of Cases

1.	Total Cases Followed	169	
2.	Cured	86	51.4%
3.	Improved	57	33.7%
4.	No Change	21	12.4%
4.	Deterioate	5	2.3%

1. 51.4% Cured after treatment.
2. 33.7% Improved after treatment.
3. 12.4% Have no change after treatment.
4. 2.3% Deterioate (Blind) after treatment.

DISCUSSION

Study of injury of 8 yrs. (86-93) shows the percentage of Ocular injury varies from 2.2% to 4.9% in every year, the most common site of injury was Cornea and most Vulnerable part is also Cornea.

Once Cornea is involved, not treated in time, it leads to diminished vision or blindness. Thus Corneal injury should be tackled in time.

The incidence of injury increase after 6 years reached maximum in between 16 to 25 years, which is the most after 46 yrs. of life, it was much reduced after 66 yrs. Incidence of injury was more in January, March, July, September and December. In December and January people are most active in paddy harvesting & thrashing. In March people are active in wheat harvesting thrashing and it is a dry month people used to go forest for cutting grasses. In July and September, people are active in removing grasses of fields. Thus there are the most vulnerable months of injury.

Mostly left (51.9) % eye was injured more than right (42.7%), both eye injury (5.4%) was rare. (1) 9.3% Cases of Corneal Ulcer, 3.3% cases of Keratitis, 4.3% cases Foreign Body, 7.9% of Corneal Opacity where due to injury.

Incidence of trauma was more in Farmers 32.1% and House wives 26.2%. Majority of Nepalese House wives are Agricultural workers. Student was the 3rd.

vulnerable group of ocular injury. Majority of Nepalese student help in agricultural works to their parents in their off time.

The most common cause of injury was wood stick, leaf/grass & grain and the most. Common place of injury was field, second was home and third was road. 45.8% Patients directly come to hospital, 32.1% patients used some unknown drops or oientment. 6.1% Patients used herbal preparation, 5.9% Patients used human or cows milk, 2.2% patients used steroid after trauma.

Majority of patients (30.1%) go to Medical hall or send their relative to medical hall to purchase drugs. Medical shop woner who may have training of drug orientation of three weeks, gives drugs directly, it may be antibiotic or steroids or both. 1.9% patients still believed in Dharmi. Majority 174 (43.83%) patients visited hospital within 7 days. Only 14 (3.08%) patients visited hospital within 6 hrs. of injury. Majority of patients who visit first Medical hall, Dharmi or others, if they are not cured then only they come to hospital for treatment. Patients who had Corneal opacity, come after 15 days only. Only 61.6% came for follow up, and 36.3% were defalter. 2.4% patients presented in a stage of incurable blind. 2% in a stage of perforation, and 2.6% cases of injury were due physical assault. 39.6% were discharged after examination. Only were cured after treatment, 33.7% were improved after treatment. 12.4% were not improved. 2.3% were deteriorated after treatment. Cases

who used steroid previously before coming to hospital were deteriorated.

CONCLUSION

Ocular trauma which varied from 2.2% to 4.9%, were mostly Corneal injuries, occurs in most active period of life (16-35 yrs) were more seen in male than female. Left eye was more affected than right. Incidence of injury occurred mostly in farmers and house wives, and common cause of injury were due to wood stick, leaf/grass & grain. Field and home were the common place of injury, 30.1% patients consulted medical hall first for treatment, and 32.1% used unknown drops. 1.9% still belief in

Dhami & Jhankri, 6.1% used herbal preparation, 2.2% used steroid for treatment. Very few 14 (3.08%) patients came within 6 hrs of injury. Very few 14 (3.08%) patients came within 6 hrs. of injury, majority come within 7 days of injury 180 (39.6%) patients were discharged after examination. 274 (60.04%) were asked for follow up. Among 274 patients, only 61.9% patients come for follow up, rest 38.3% patients were defalter. Among followed up 51.4% were cured, 33.7% improved, 12.4% had no change, 2.3% were deteriorated (Blind). Thus ocular trauma properly treated in time, blindness can be prevented.

REFERENCES

1. Report of HMG/WHO Nepal Prevention and Control of Blindness Project 1981