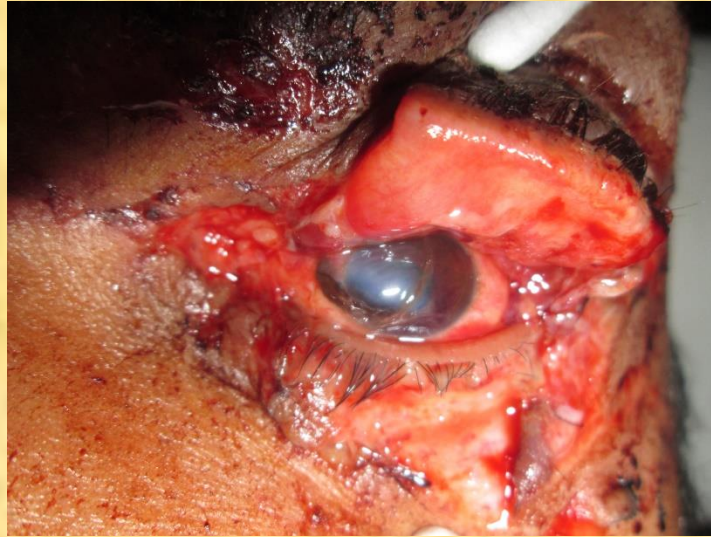


**PRESENTING AUTHOR: DR ARUSHI KAKKAR (A20748)**



**PROFILE OF OCULAR TRAUMA AMONGST VARIOUS  
TRAUMA PATIENTS PRESENTING TO TERTIARY CARE  
CENTRE IN PUNJAB**

*FINANCIAL DISCLOSURE: No Financial Interests*

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# INTRODUCTION

- Ocular trauma is one of the common causes of ophthalmic morbidity and monocular blindness in all parts of the world.

*Tylefors B. Epidemiologic patterns of ocular trauma. Aust N Z J Ophthalmol.1992;20(2):95-8.*

- Approximately 1.6 million people are blind owing to ocular trauma, 2.3 million are bilaterally visually impaired and 19 million have unilateral visual loss.

*Negrel AD, Thylefors B. The global impact of eye injuries. Ophthalmic Epidemiol.1998;5(3):143-69.*

- In India, the reported incidence of ocular trauma varies from 1-5%

*Shukla B. Epidemiology of ocular trauma. In: Shukla B, Natrajan S. Editors. Management of Ocular Trauma. 1<sup>st</sup> ed. Delhi: Meenakshi Printers; 2005; 3-4*

- Amongst the total number of blind cases, 1.2% is contributed by injuries which are preventable

*Kapoor PM, Kundu AK. Epidemiology of chronic non-communicable diseases and conditions. In: Park K. Editor. Park's Textbook of Preventive And Social Medicine. 15<sup>th</sup> ed. Delhi: Banarsi Dass Bhanot Publisher; 1997. p. 296*

# OUR STUDY

- *Objective*: To study the variety and extent of ocular injury and morbidity in ocular trauma or associated polytrauma patients.
- *Type of study*: Prospective study
- *Sample size*: 246

# MATERIAL AND METHODS

## ➤ *Inclusion criteria:*

- A. Trauma related patients presenting in our OPD
- B. Polytrauma patients associated with orbital and ocular injuries presenting in emergency.

## ➤ *Exclusion criteria:*

- A. Patients with H/O previous trauma related surgery.
- B. Patients in which clinical findings were of non-traumatic origin.

## ➤ *Time period:* 18 months

All patients were examined according to standardized protocol and the data was recorded in proforma prepared by Ocular Trauma Society of India

# RESULTS

<b>DEMOGRAPHIC PROFILE</b>	<b>DATA OF 246 PATIENTS</b>
BACKGROUND	RURAL=212 URBAN=34
GENDER	MALES=214 FEMALES=32
AGE-GROUP	ADULTS=205 CHILDREN=41
LATERALITY	RIGHT EYE=102 LEFT EYE=90 BOTH EYES=54
MEDICOLEGAL CASES	YES=70 NO=176
ALCOHOL INTAKE	YES=42 NO=204
MODE OF PRESENTATION	POLYTRAUMA WITH OCULAR INJURY=133 OCULAR INJURY=113
OCULAR TRAUMA CLASSIFICATION	CLOSED GLOBE=209 OPEN GLOBE=26

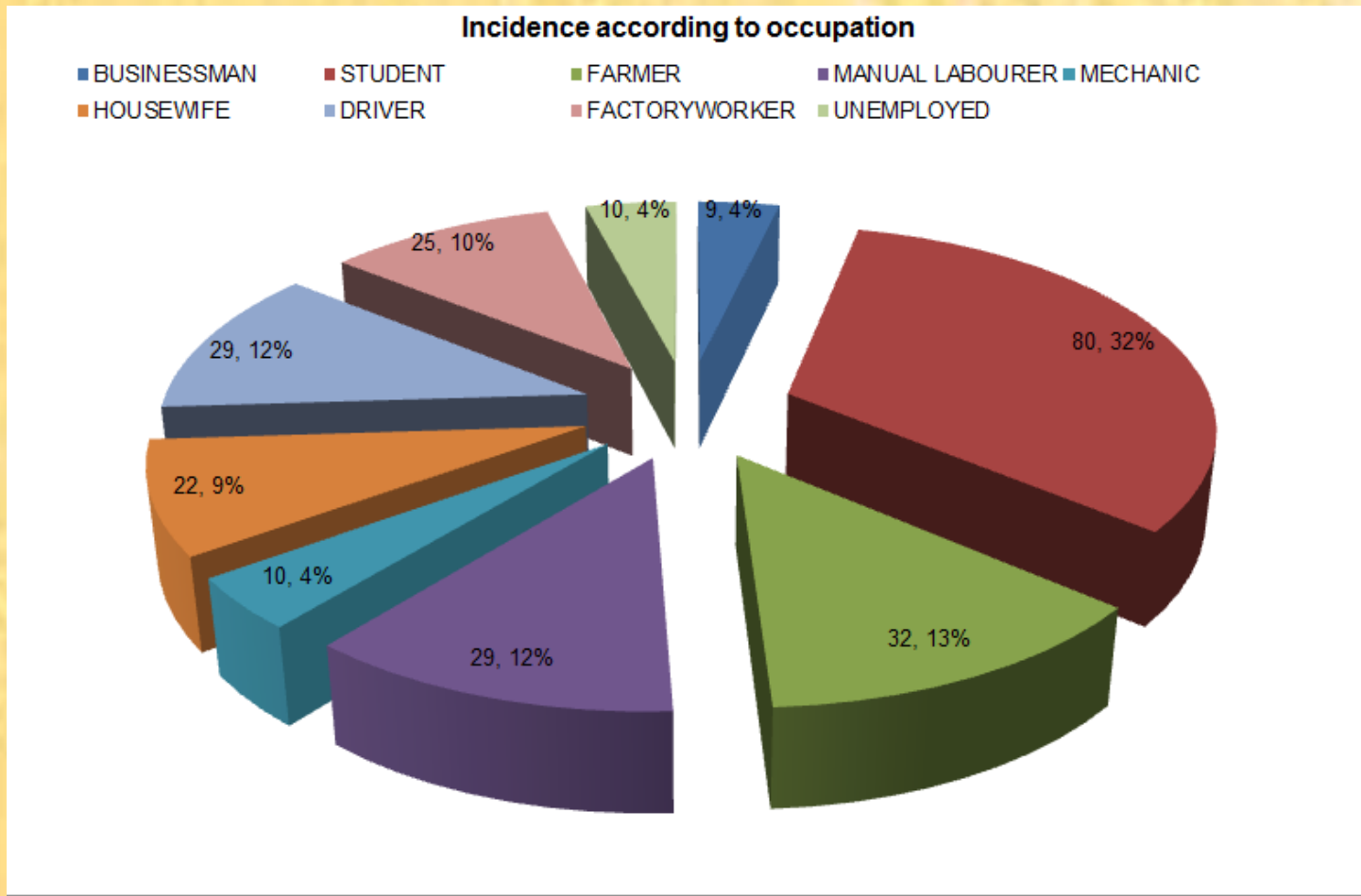
## TIME GAP

DURATION	NUMBER	PERCENTAGE
LESS THAN 4 HOURS	26	10.6
4-24 HOURS	66	26.8
1- 7 DAYS	111	45.1
AFTER 7 DAYS	43	17.5
TOTAL	246	100.0

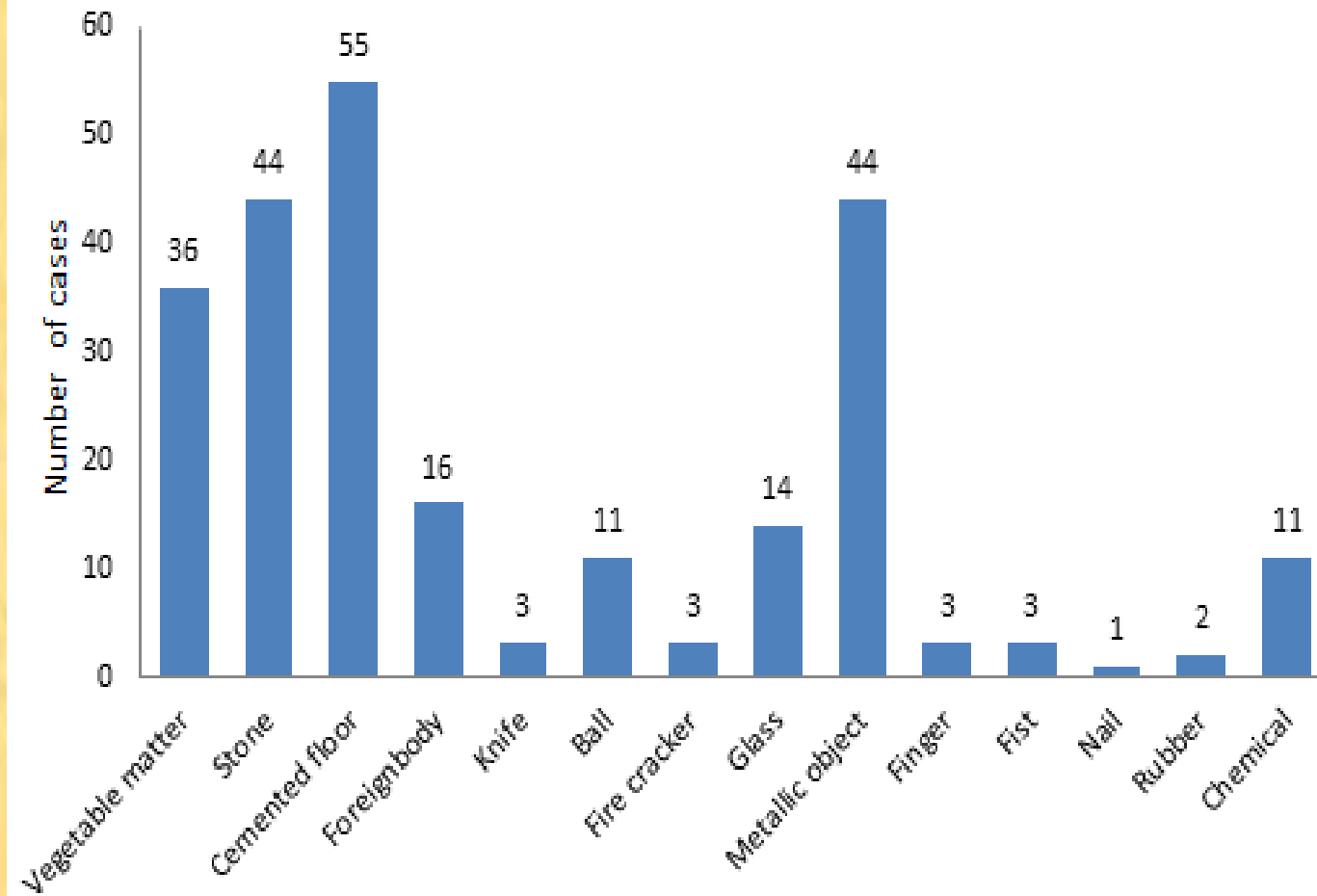
## PLACE OF OCCURRENCE

PLACE	NUMBER	PERCENTAGE
ROAD	131	53.3
HOME	49	19.9
SCHOOL	10	4.1
WORKPLACE	28	11.4
MISCELLANEOUS	28	11.4
TOTAL	246	100.0

# OCCUPATION



# CAUSATIVE AGENT

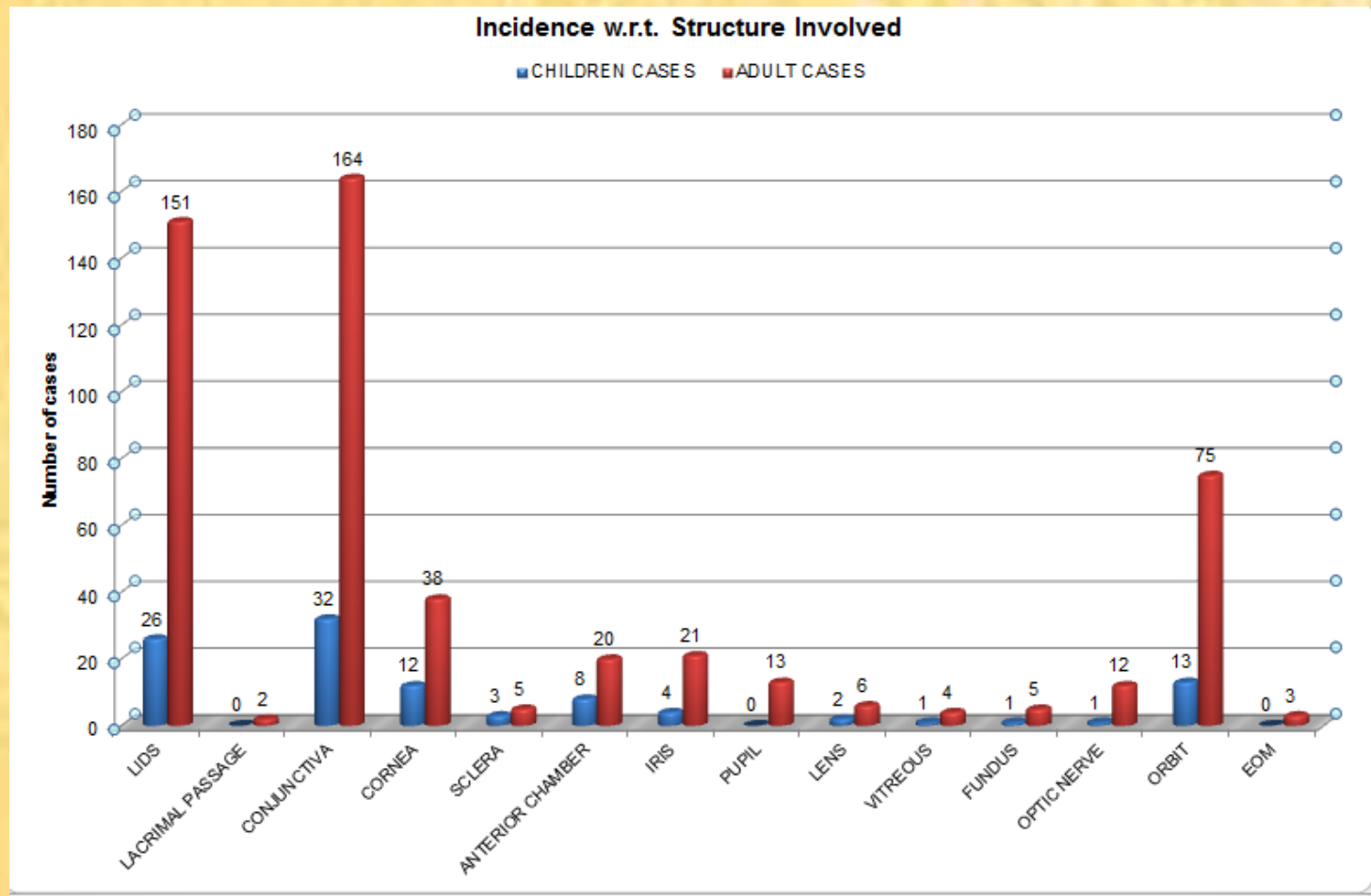


# OCULAR TRAUMA CLASSIFICATION

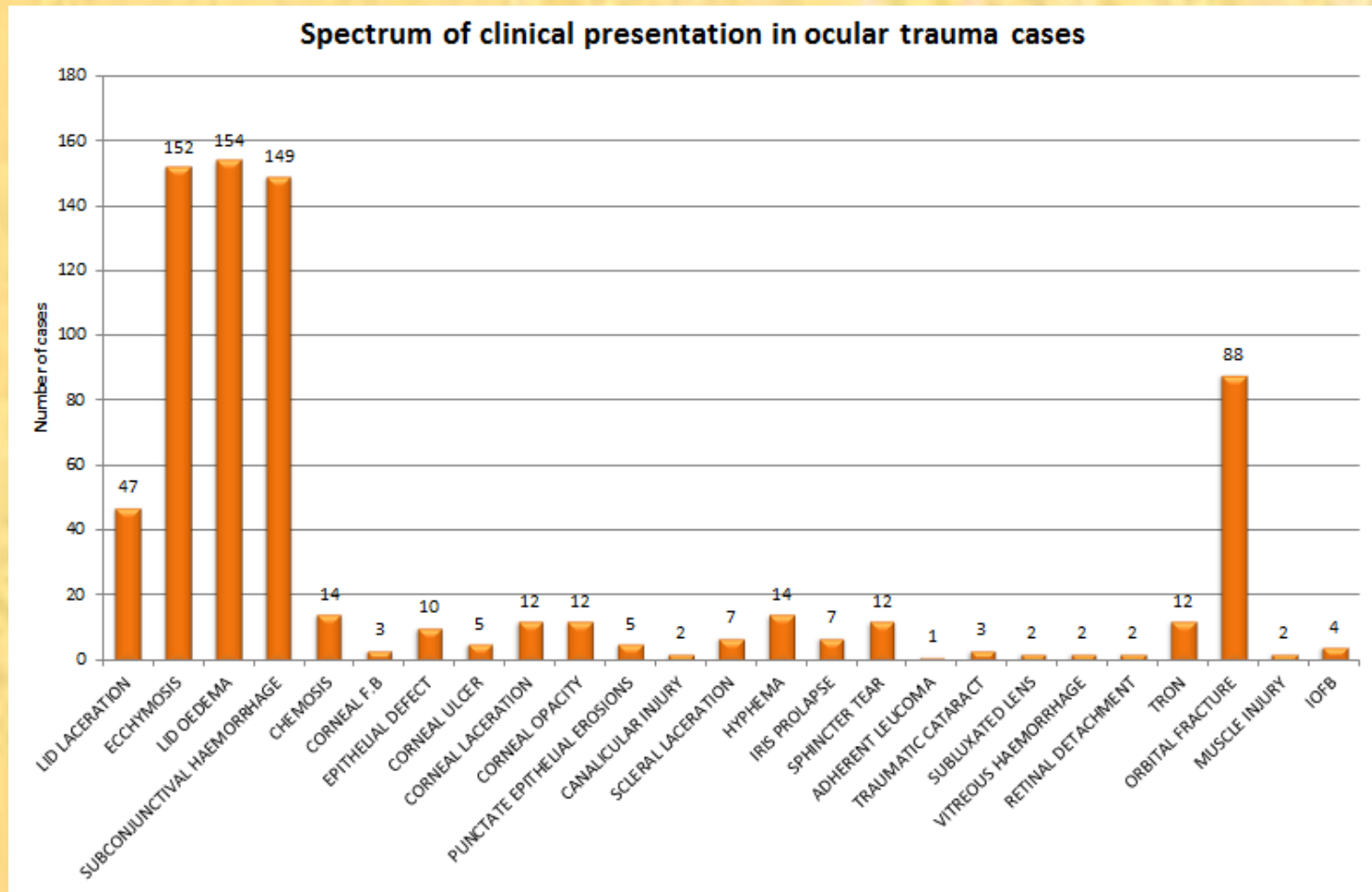
		OPEN GLOBE	CLOSED GLOBE
TYPE OF INJURY	RUPTURE	4	-
	PENETRATING	17	-
	IOFB	1	-
	PERFORATING	-	-
	MIXED	4	-
	CONTUSION	-	184
	LAMELLAR LACERATION	-	8
	SUPERFICIAL F.B	-	17
GRADE (V/A)	>6/12	2	155
	>6/60 TO <6/12	2	28
	>1/60 TO <6/60	2	11
	PL TO 1/60	15	11
	NPL	5	4
ZONE	I	15	195
	II	7	11
	III	4	3
RAPD	+VE	3	14
	-VE	23	195

This classification excludes cases of chemical injury (n=11).

# STRUCTURE INVOLVED



# CLINICAL PRESENTATION





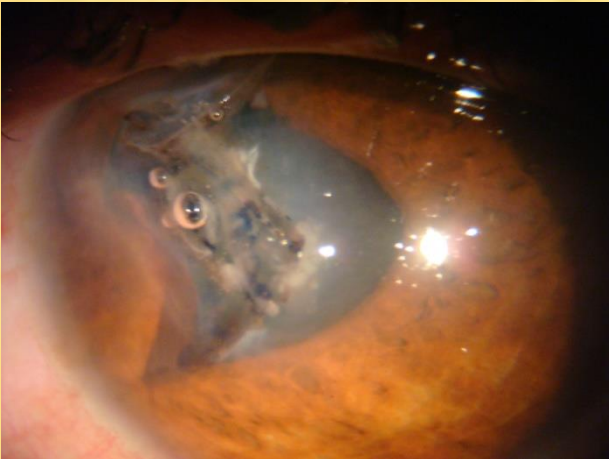
TOTAL HYPHEMA



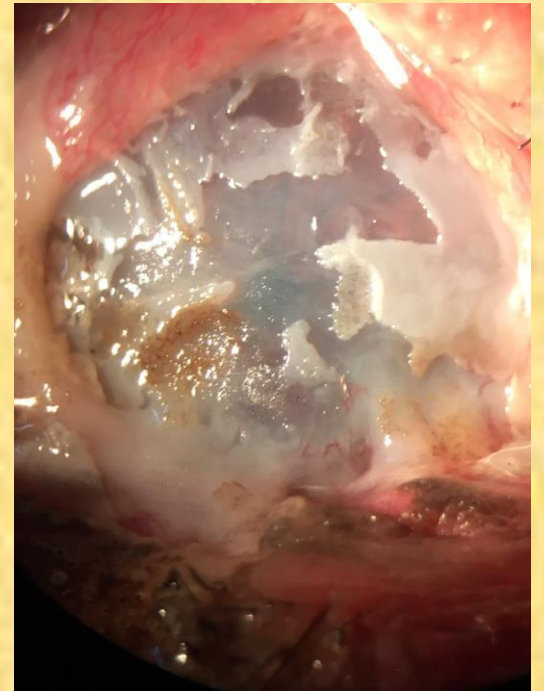
BLACK EYE



LID LACERATION



CORNEAL LACERATION



MOLTEN IRON INJURY

# VISUAL MORBIDITY

GRADE OF VISUAL LOSS	TOTAL CASES	ADULT CASES	%AGE	CHILDREN CASES	% AGE
NPL	9	9	100.0	0	.0
PL to <1/60	27	21	77.77	6	22.22
>1/60 to <6/60	13	11	84.61	2	15.38
>6/60 to <6/18	31	27	87.1	4	12.90
>6/12	166	137	82.53	29	17.46
TOTAL	246	205	83.33	41	16.66

# DISCUSSION

- Blindness is a serious public health problem as it affects person's quality of life.
- Incidence of blindness varies in different communities ranging from 0.2-1.0 percent (WHO).

*Resnikoff S, Pascolini D, Etya'ale D, Kocur I, Pararajasegaram R, Pokharel GP et al. Global data on visual impairment in the year 2002. Bull World Health Organ. 2004;82(11):844-51.*

STUDIES	YEAR	PLACE	DURATION	PATIENTS	GENDER	LATERALITY	CG	OG	VM
PRESENT STUDY	2015-2016	SGRDIMSR, AMRITSAR	18 MONTHS	246	M=214 F=32	R=102 L=90 B=54	88.94%	11.06%	49
Karaman et al	2004	SPLIT UNIVERSITY HOSPITAL	5 YEARS	383	M:F=5.4:1		67.3%	32.7%	71
Nirmalan et al	2004	SOUTHERN INDIA BY ARAVIND EYE CARE		229			54.9%		
Singh et al	2005	AIIMS, NEW DELHI	1 YEAR	523 eyes	M=88.5% F=11.5%	R=262 L=245 B=16	44.2%	55.8%	359 eyes
Babar et al	2007	KHYBER INSTITUTE, PESHAWAR	5 YEAR 6 MONTHS	1105	M=80% F=20%		42.98%	46.18%	
Soliman et al	2008	KASR EL AINI HOSPITAL, CAIRO UNIVERSITY	6 MONTHS	147	M=80% F=20%		19.6%	80.4%	108
Omolase et al	2011	OWO, NIGERIA	1 YEAR	132	M=77.3% F=22.7%		84.1%	12.1%	
Dhasmana et al	2012	HIMALYAN INSTITUTE, DEHRADUN	1 YEAR	88	M=65.9% F=34.09%		53.39%	38.83%	54
Misra et al	2013	PRAVARA INSTITUTE, LONI	2 YEARS	60	M=71.7%		68.33%	31.67%	39

STUDY	YEAR	PLACE	DURATION	PATIENTS	GENDER	LATERALITY	CG	OG	VM
Titiyal et al	2013	DR SUSHILA TIWARI GOVT HOSPITAL, HALDWANI	1 YEAR	165	M:F= 10:1		31.9%	45.5%	93
Gopinath et al	2015	K.R HOSPITAL, MYSORE	1 YEAR	60	M:F= 3:1		66.6%	26.6%	15

Visual prognosis in cases of ocular trauma is determined by multitude of factors like latent period between injury and reporting, mode, severity of injury and associated complications.

In our study, visual morbidity was less as compared to other studies because of benign nature of injuries, prompt referral, close follow up and less industrial injuries (which are usually of severe nature).

# CONCLUSION

- *Complications encountered:* ectropion, entropion, dystopia, squint, phthisis bulbi.
  
- 1 patient was resorted to evisceration as primary procedure because of badly mutilated globe.
  
- *There is need for:*
  1. Strict reinforcement of traffic rules and industrial safety protocols.
  2. Individuals at risk need to be educated regarding use of protective gear.
  3. Public awareness and education programs for improved outcome of ocular injuries.

***THANK YOU!!!.....***