

Altered pattern of ocular trauma incidence and outcome during COVID-19 lockdown period

Dear Editor,

Coronavirus disease 2019 (COVID-19) pandemic is disrupting the world and representing the most significant stress for several national health care systems and services since their foundation.^[1]

Ocular trauma is a leading cause of monocular blindness. The problem of treatment of this ocular emergency has been elevated manifold during this pandemic situation. Several studies have reported a change in the trend of ophthalmic practices due to the lockdown.^[2,3] However, only a few have shown the impact of these measures on the incidence of ocular trauma with respect to limited health care access and the subsequent outcomes.^[4]

We collected data of patients presenting ocular trauma during the same period in the previous year. Subsequently, the number of patients who presented ocular trauma, the number

of patients who required surgery, and the number of pediatric patients were determined; these data were compared between the two study periods [Table 1 and Fig. 1].

In this study, we provide an insight on the demographic patterns of ocular trauma during the lockdown and suggest alternatives or change in policies for the prevention of such injuries and their associated comorbidities.

The current cohort consisted of 353 eyes, of which 110 were from 2020 and 243 were collected during 2019. The patterns of ocular trauma were different for both years. Also, the total outdoor injuries were more during 2020 in the pediatric age-group.

During the lockdown, the imposition of travel restriction increased the overall incidence of ocular trauma (this could be due to the decrease in the total number of patients at our center since the routine outpatient department was closed). Pellegrini *et al.*^[2] and Das and Narayanan^[3] reported altered patterns of ophthalmic trauma in the emergency department. The proportion of cases among the pediatric age-group increased from 23.5% to 36.4% [Table 1]. Similar findings have been reported by Hamrroush and Qureshi^[4] and Shah *et al.*^[5]



Figure 1: Comparative study between lockdown and non lockdown period

Table 1: Comparative study between lockdown and nonlockdown periods

	2019 Nonlockdown Period	2020 Lockdown Period	P	Total
Total Cases	3,106	483	<0.05	3,589
Ocular Trauma Cases (%)	243 (7.8%)	110 (22.7)	<0.05	454 (12.6%)
Ocular Trauma Cases Needed Surgeries (%)	62 (25.5%)	52 (46.4%)	<0.05	122 (34.6%)
Male:Female Ratio	74.9:25.1	78.6:21.4	NS	75.9:24.1
Mean Age	34.60	27.68	NS	32.42
Pediatric Cases With Ocular Trauma (%)	57 (23.5%)	40 (36.4%)	<0.05	97 (27.5%)
Pediatric Cases With Ocular Trauma Requiring Surgical Intervention (%)	27 (47.3%)	24 (60.5%)	NS	52 (53.6%)
Mean Interval Between Injury and Presentation in Days	7.03	6.09	NS	6.71
Mean Follow-Up in Days	25.5	18.9	NS	23.44
Open:Closed Globe Ratio	88.2:11.8	60.9:39.1	<0.05	20.4:79.6
Common Activity During Injury Play	58 (23.9%)	31 (28.5%)	<0.05	89 (25.2)
Common Object of Injury Wooden Stick	69 (28.4%)	45 (40.9%)	<0.05	114 (32.2)
Average Number of Surgeries for Eye	0.38	0.82	<0.05	0.52

NS=Not significant

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

**Shreya Shah, Mehul Shah, Apeksha Kataria,
Pradeep Candana, Mrugesh Vaghela**

Drashti Netralaya, Dahod, Gujarat, India

Correspondence to: Dr. Mehul Shah,
Drashti Netralaya, Nr. GIDC, Chakalia Road,
Dahod - 389 151, Gujarat, India.
E-mail: omtrustfahoa@gmail.com

References

- Chatterjee K, Chatterjee K, Kumar A, Shankar S. Healthcare impact of COVID-19 epidemic in India: A stochastic mathematical model. *Med J Armed Forces India* 2020;76:147-55.
- Pellegrini M, Roda M, Lupardi E, Di Geronimo N, Giannaccare G, Schiavi C. The impact of COVID-19 pandemic on ophthalmological emergency department visits. *Acta Ophthalmol* 2020;22:e1058-9.
- Das A, Narayanan R. Demographics and clinical presentation of patients with ocular disorders during the COVID-19 lockdown in India: A report. *Indian J Ophthalmol* 2020;68:1393-9.
- Hamroush A, Qureshi M. Increased risk of ocular injury seen during lockdown due to COVID-19. *Cont Lens Anterior Eye* 2020;43:216.
- Shah M, Bhasin P, Shah S, Patel H. Impact of COVID-19 Lock down period on Ocular Trauma. Published online July 28, 2020. doi: 10.21203/rs.3.rs-49393/v1.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Access this article online

Quick Response Code:



Website:

www.ijo.in

DOI:

10.4103/ijo.IJO_3285_20

Cite this article as: Shah S, Shah M, Kataria A, Candana P, Vaghela M. Altered pattern of ocular trauma incidence and outcome during COVID-19 lockdown period. *Indian J Ophthalmol* 2021;69:1633-4.

© 2021 Indian Journal of Ophthalmology | Published by Wolters Kluwer - Medknow