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 Hamroush and Qureshi[4] and Shah et al.[5]

![Figure 1: Comparative study between lockdown and non lockwdown period](https://example.com/figure1.png)

| 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:Femal 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
Intraoperative complications in high volume tertiary eye care center in India: A report. Indian J Ophthalmol 2020;68:1393-9.

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