

Purpose

To examine trends in ophthalmic trauma secondary to five major sports (baseball, soccer, tennis, football, basketball) and identify differences between patient characteristics and time period (pre-COVID vs COVID) of injury.

Methods

The National Electronic Injury Surveillance System was queried to extract cases related to the sports of interest from 2011–2020. Entries were analyzed by age, sex, diagnosis, location, and disposition, with narrative descriptions assessed to characterize the mechanism of injury and visual sequelae. National incidence was extrapolated, and Pearson's and Fisher's exact tests were performed.

Results

Among 98,995 presentations, most involved males (83.5%) and pediatric patients (59.2%). Contusion/abrasion (57.3%) was the predominant diagnosis, with injuries primarily precipitated by contact with a ball (44.9%) and occurring in the recreational setting (49.0%). Visual sequelae were documented in 6.4% of injuries. Patients were commonly treated/examined and released (95.6%). Between sports, significant differences in diagnosis ($p < .001$), mechanism of injury ($p < .001$), location ($p < .001$), visual sequelae ($p < .001$), and disposition ($p = .005$) were observed. Stratification by age indicated significant differences in diagnosis, mechanism of injury, and location (all $p < .001$). Stratification by sex indicated significant differences in the mechanism of injury ($p < .001$) and visual sequelae ($p = .04$). Stratification by time period indicated significant differences in diagnosis ($p = .002$) and mechanism of injury ($p = .001$).

Conclusion

There are notable differences in sports-related ocular injuries by patient characteristics, revealing important considerations for their clinical evaluation and the development of safety guidelines.

