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## Ocular Complications of Facial Burns in the Pediatric Population

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# Ocular Complications of Facial Burns in the Pediatric Population

Abigail Teitelbaum, MS; Annmarie Craig; Sharmila Segar, MD; Erika Ridelman, PhD; Lisa Bohra, MD and Christina Shanti, MD

**Introduction:** Pediatric burns commonly involve the face and periocular areas, with a possibility of impairing vision. The aim of this study is to characterize ocular injuries in burn patients and identify the patients at most risk of ocular complications.

**Methods:** This study is a retrospective review within a single academic, urban pediatric burn center. All burn patients under 18 years of age admitted from January 2010 to December 2020 with ocular involvement were included. Variables analyzed included patient demographics, burn characteristics, presence of ophthalmology consultation, ocular exam findings, follow up time period, and early and late ocular complications.

**Results:** In the study period, 2,781 patients were admitted to our burn center, 300 of whom had facial burns involving the eyes and/or eyelids. Etiologies of burn injuries were as follows: 112 (37.5%) scald, 80 (26.8%) flame, 35 (11.7%) contact, 31 (10.4%) chemical, 28 (9.4%) grease, and 13 (4.3%) friction. Overall, 70.9% of patients with ocular burns received an ophthalmology consult. Of these patients, 61.5% had periorbital swelling and 39.8% had corneal injuries. Of the 207 patients who were seen by ophthalmology inpatient, only 61 (29.5%) had a follow-up visit as recommended. Among patients seen outpatient, 6 had serious ocular sequelae including ectropion, entropion, symblepharon, and corneal decompensation, 4 of whom had firework-related injury.

**Conclusion:** Burns involving the ocular surface and eyelid margins are at particular risk for long-term damage. As ocular burns can cause immediate as well as delayed sequelae, ophthalmologic evaluation is important in acute and subacute periods after injury.