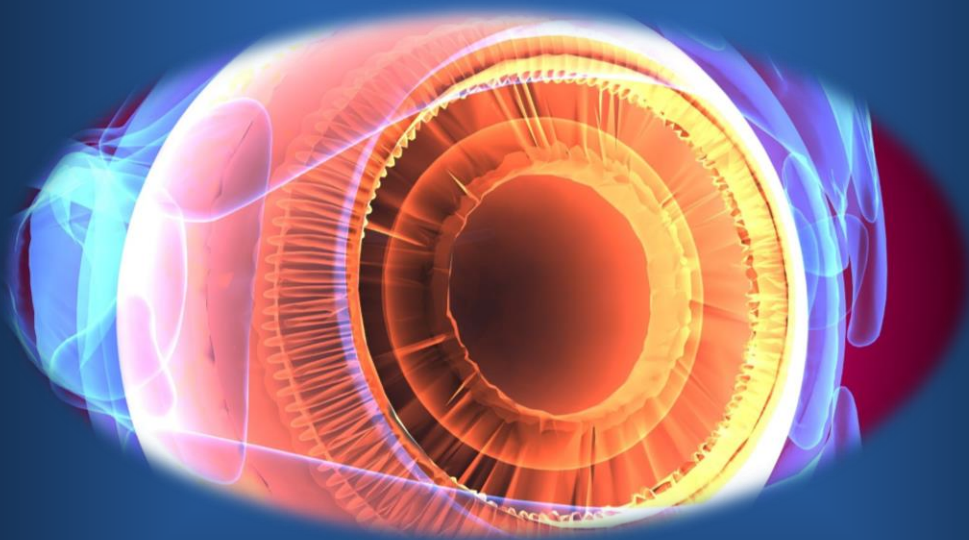


ophthal Focus

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Dear Doctor,

Greetings from Micro Labs Limited. We are happy to bring you 'Ophthal Focus' which contains latest and interesting news in the field of Ophthalmology.

This issue contains

- Ocular Manifestations and Clinical Characteristics of Children With Laboratory-Confirmed COVID-19
- Pagetoid Spread of Sebaceous Cell Carcinoma over the Cornea
- A Comparison of Trabeculectomy Surgery Outcomes With Mitomycin-C Applied by Intra-Tenon Injection Versus Sponge

Should you require any specific article or medical information, please feel free to contact us at medicalservices@microlabs.in

Looking forward to your valuable feedback

Best Regards,

Medical Team, Micro Labs Limited

Ocular Manifestations and Clinical Characteristics of Children With Laboratory-Confirmed COVID-19

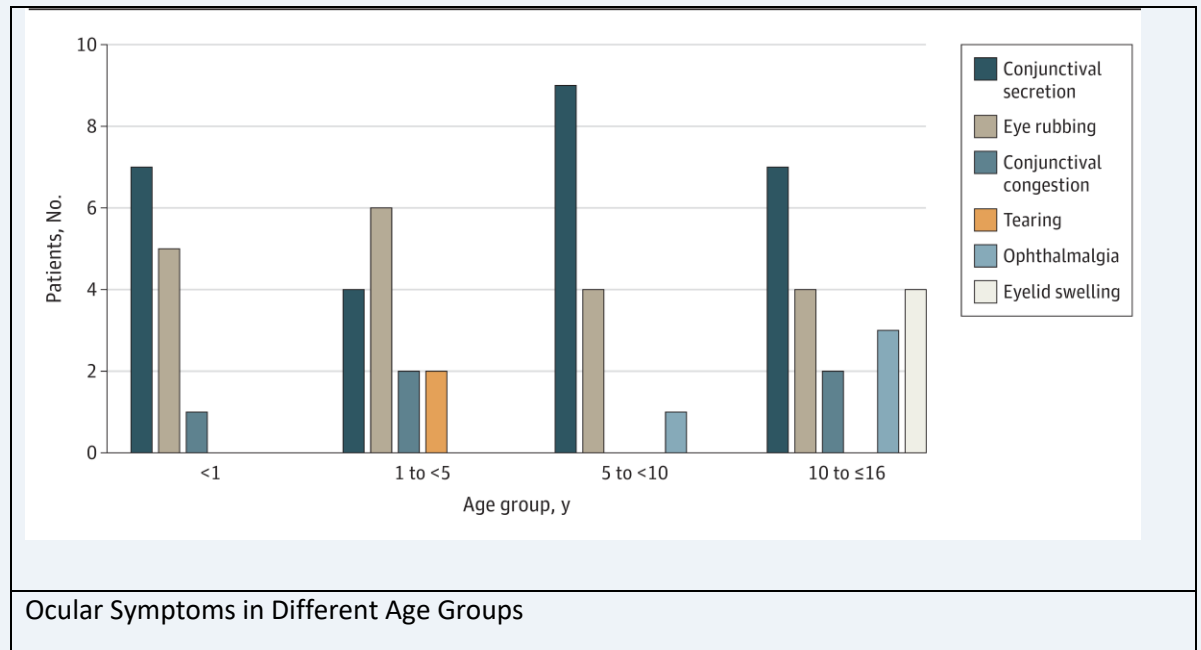
Ocular manifestations and outcomes in children with confirmed coronavirus disease 2019 (COVID-19), relevant affecting factors, and differences in ocular disease between children and adults have yet to be fully understood. This study was conducted to investigate ocular manifestations and clinical characteristics of children with laboratory-confirmed COVID-19.

This cross-sectional study was conducted at Wuhan Children's Hospital in Wuhan, China. Children with COVID-19 confirmed by severe acute respiratory syndrome coronavirus disease 2 nucleic acid tests of upper respiratory

tract specimens between January 26 and March 18, 2020, were included. Onset clinical symptoms and duration, ocular symptoms, and needs for medication.

A total of 216 pediatric patients were included, among whom 134 (62%) were boys, with a median (interquartile range) age of 7.25 (2.6-11.6) years. Based on the exposure history, 193 children (89.4%) had a confirmed (173 [80.1%]) or suspected (20 [9.3%]) family member with COVID-19 infection. The most common symptoms among symptomatic children were fever (81 [37.5%]) and cough (79 [36.6%]). Of 216 children, 93 (43.1%) had no systemic or respiratory symptoms. All children with mild (101 [46.8%]) or moderate (115 [53.2%]) symptoms recovered without reported death. Forty-nine children (22.7%) showed various ocular manifestations, of which 9 had ocular complaints being the initial manifestations of COVID-19.

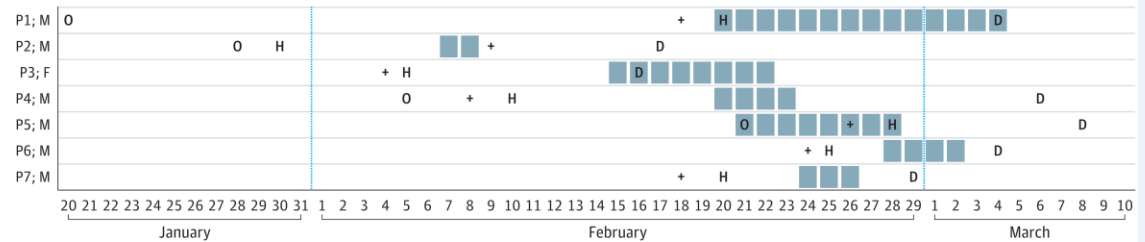
The common ocular manifestations were conjunctival discharge, eye rubbing, and conjunctival congestion. COVID-19 in children was typically not severe, and all ocular symptoms were mild and could recover or improve eventually.



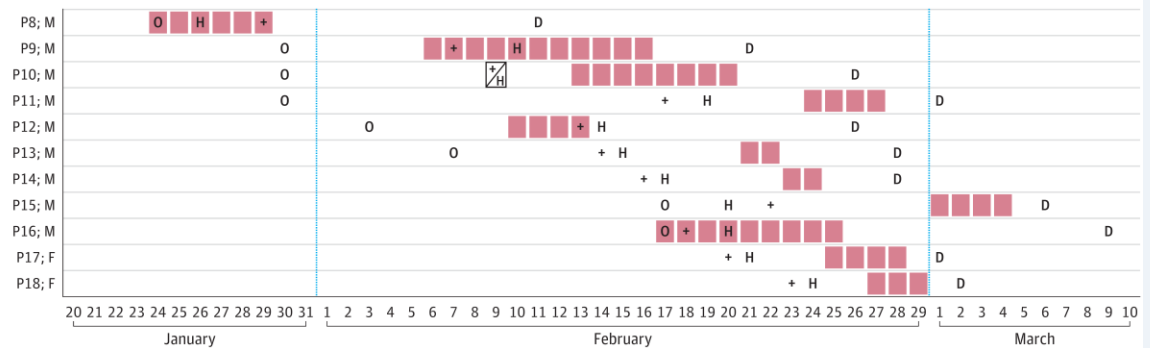
The common ocular manifestations were conjunctival discharge (27 [55.1%]), eye rubbing (19 [38.8%]), and conjunctival congestion (5 [10.2%]). Children with systemic symptoms (29.3% vs 14.0%; difference, 15.3%; 95% CI, 9.8%-20.7%; $P = .008$) or with cough (31.6% vs 17.5%; difference, 14.1%; 95% CI, 8.0%-20.3%; $P = .02$) were more likely to develop ocular symptoms. Ocular symptoms were typically mild, and children recovered or improved. In this cross-sectional study, children hospitalized with COVID-19 in Wuhan, China, presented with a series of onset symptoms including fever, cough, and ocular manifestations, such as conjunctival discharge, eye rubbing, and conjunctival congestion. Patients' systemic clinical symptoms or cough were associated with ocular symptoms. Ocular symptoms recovered or improved eventually.

Clinical Course of 27 Patients with Conjunctival Discharge

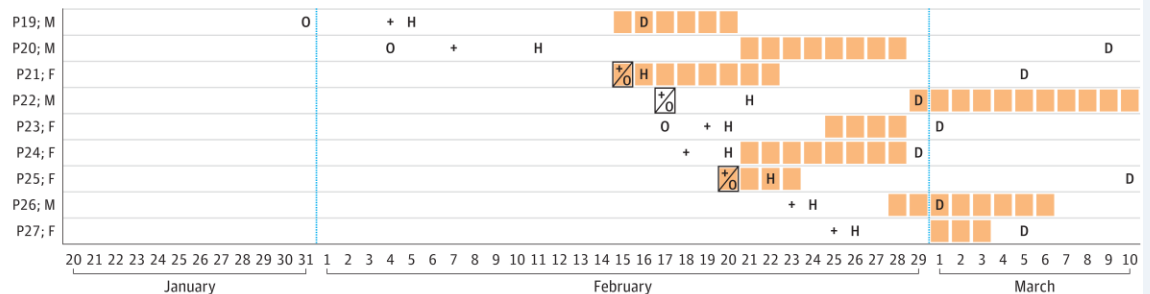
A Thin watery secretions



B Yellow-green purulent secretions



C White mucoid secretions



Patients were numbered as P1 to P27, followed by sex, shown as M for male or F for female. They were further divided into 3 groups by the different properties of conjunctival discharge, namely thin watery secretions (A), yellow-green purulent secretions (B), and white mucoid secretions (C). Reverse transcriptase-polymerase chain reaction test was completed for severe acute respiratory syndrome coronavirus 2 on nasopharyngeal or oropharyngeal swabbing specimens. + Indicates positive reverse transcriptase-polymerase chain reaction test result; D, date of discharge; H, date of hospitalization; O, date of onset.

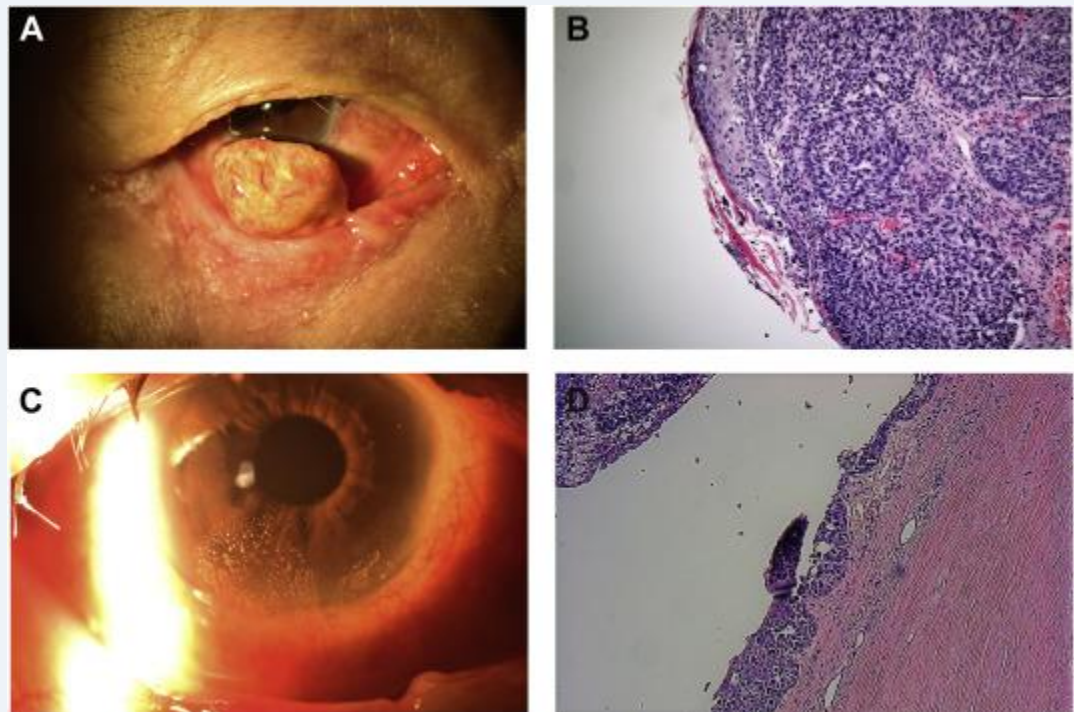
In conclusion, of 216 children with laboratory confirmed COVID-19, 49 (22.7%) had ocular manifestations. The common ocular manifestations were conjunctival discharge, eye rubbing, and conjunctival congestion. COVID-19 in children was typically not severe, and all ocular symptoms were mild and could recover or improve eventually.

Source: Ma N et al. JAMA Ophthalmol. 2020 August. Published online. doi:10.1001/jamaophthalmol.2020.3690

Pagetoid Spread of Sebaceous Cell Carcinoma over the Cornea

Intraepithelial sebaceous cell carcinoma (SebCC) can spread superficially over large areas of the conjunctiva and cornea, although the actual shape and extent of pagetoid spread are very rarely observed with slit-lamp examination. An 83-year-old woman visited with a recurrent eyelid mass (Fig A). SebCC had been diagnosed pathologically demonstrating lobules of neoplastic cells with foamy cytoplasm (Fig B, $\times 100$).

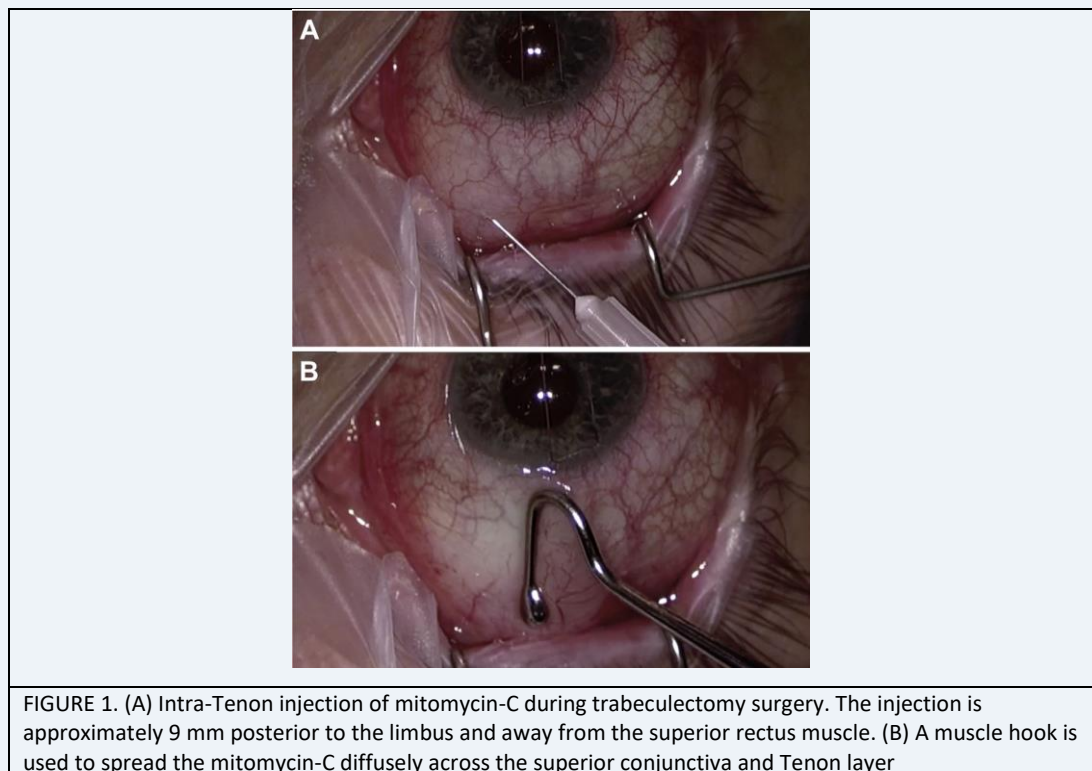
A slit-lamp examination (Fig C) revealed clustered dots and linear corneal epithelial opacities extending from the inferior limbus to the corneal center, which were confirmed as a pagetoid spread of the primary carcinoma in the exenteration specimen (Fig D, $\times 100$).



Source: Park JW et al. Ophthalmology. 2020 Aug;127(8):1085. doi: 10.1016/j.ophttha.2020.04.003.

A Comparison of Trabeculectomy Surgery Outcomes With Mitomycin-C Applied by Intra-Tenon Injection Versus Sponge

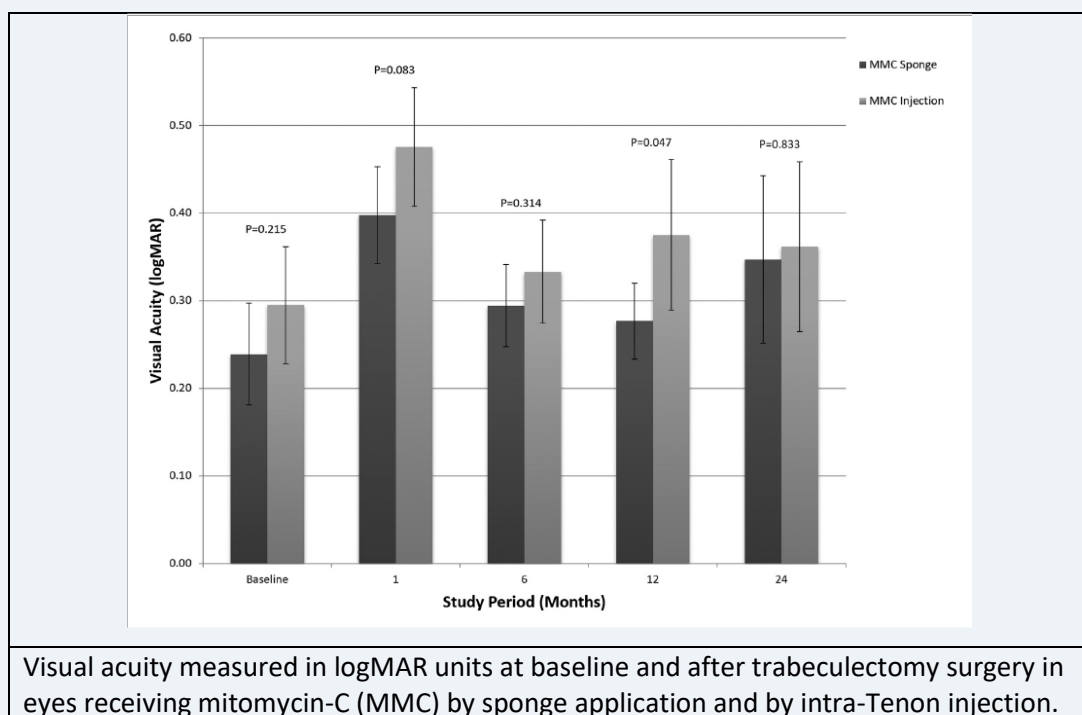
The retrospective study was done to compare the outcomes of mitomycin-C (MMC) delivered by intra-Tenon injection vs sponge application during trabeculectomy surgery. Lim et al. retrospectively reviewed 566 patients with primary and secondary glaucoma diagnoses who received trabeculectomy surgery with MMC in an academic medical center. Exclusion criteria were age less than 18 years, no light perception vision, combined surgery, previous glaucoma incisional surgery, intraoperative 5-fluorouracil, or follow-up <1 month. Subjects were divided into 2 cohorts: MMC delivered by sponge application or by intra-Tenon injection. Main outcome measures were postoperative intraocular pressure (IOP) level and secondary measures were survival rate for IOP control, glaucoma medication use, complication rate, and vision.



After inclusion/exclusion criteria, 316 eyes were available for analysis; 131 eyes had MMC delivered via sponge and 185 eyes via injection. Mean postoperative IOP was not significantly different between treatment groups but change in IOP from baseline was lower in the sponge vs the injection group

MMC injection during routine trabeculectomy lowers IOP in a fashion like that of the more traditional method of MMC delivery by sponge and that the safety profile is likewise comparable.

24 months after surgery ($P = .038$). The MMC sponge group had significantly more tense, vascularized, or encapsulated blebs as a late complication ($P = .046$). Time to failure for postoperative IOP control was not significantly different between MMC treatment groups, but older patient age and limbus-based conjunctival incision were associated with significantly longer time to fail.



The application of MMC by injection was similar to application by sponge in lowering IOP in patients with glaucoma and the safety of both techniques appears to be comparable. Limbus-based conjunctival incision had longer time to failure for postoperative IOP control vs fornix-based incision. In summary, the study demonstrates that MMC injection during routine trabeculectomy lowers IOP in a fashion like that of the more traditional method of MMC delivery by sponge and that the safety profile is likewise comparable. Another finding was that limbus-based conjunctival incision was associated with a significantly longer time to failure for postoperative IOP control.

Source: Lim M C et al. Am J Ophthalmol. 2020 Aug;216:243-256. doi: 10.1016/j.ajo.2020.03.002.



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