Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

eMethods 1. The details of the RT-PCR analysis

The RT-PCR reaction conditions were as follows:

reverse transcription at 50℃ for 15 minutes, inactivation of reverse transcriptase at 95°C for 15 minutes, 45 cycles of PCR amplification (Denaturing at 94°C for 5 seconds; Annealing/Extending at 55°C for 45 seconds). Details of the RT-PCR analysis was provided in Supplementary material because of the length of the manuscript.

eMethods 2. The protocol of immunohistochemistry

The protocol of immunohistochemistry is briefly described as follows:

Sections were dewaxed, rehydrated and immersed in 3% H_2O_2 solution for 10min. After microwave antigen retrieval with citrate buffer (pH 6.0), sections were then incubated with blocking solution (5% BSA in PBS) for 30min at room temperature. Primary anti-ACE2 antibody (Cat: 10108-T24, 1:100, rabbit IgG; Sino Biological, Beijing, China), anti-COVID-19 nucleocapsid antibody (Cat: 40143-R019, clone ID: 019, 1:100, rabbit IgG; Sino Biological, Beijing, China) was diluted in PBS containing 1% BSA and dripped onto the sections, then incubated at 4°C overnight. Sections were then rinsed 3 times in PBS and incubated with the biotinylated Goat anti-rabbit IgG (Cat: BA1003, 1:100, Boster, Wuhan, China) for 30min at 37°C. After washed 3 times in PBS, sections were further incubated with SABC-POD (Cat: SA1029, Boster, Wuhan, China) at 37°C for 30 min, and rinsed 4 times in PBS, then developed with diaminobenzidine (DAB) and dyed with hematoxylin. Sections were finally mounted with neutral balsam. and photographed under microscop (BX51, Olympus, Japan).

For immunofluorescence staining, sections were incubated with primary antibodies, CoraLite488 conjugated goat anti-rabbit IgG (Cat: SA00013-2, 1:200, Proteintech, Wuhan, China) was diluted in PBS and dripped onto the sections, then incubated at 37°C for 30 min. Sections were then rinsed 3 times in PBS, dyed with DAPI (Roche, Switzerland), mounted with 50% glycerol/PBS and photographed under fluorescence microscope (BX51, Olympus, Japan).

eMethods 3. The procedure of the trabeculectomy surgery

The procedure of the trabeculectomy surgery is as follows：

1.angular scleral limbal puncture under the temporal;2.make a conjunctival flap on the base of upper fornix conjunctiva; 3.make a scleral flap;4.remove 1mm×3mm trabecular

tissue and retain it in formalin fixative solution；5.remove 2mm×2mm peripheral iris tissue and retain it in formalin fixative solution;6.suture the scleral flap；7.suture the bulbar conjunctiva；8.injecting balanced saline solution into the anterior chamber through the corneal paracentesis to restore the anterior chamber；9.remove 2mm×4mm conjunctiva tissue of the inferior fornix and retain it in formalin fixative solution.