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"Slit-Lamp Infection Protector Cover for COVID-19"

To the Editor:

The SARS-CoV-2 virus (COVID-19) pandemic has created a new normal in professional life for all healthcare workers.[1] With gradual easing of lockdown, the risk is likely to escalate, and safe practice guidelines should be followed as suggested by many institutions.[2,3]

To protect from COVID-19 infection, we have designed a *Slit-Lamp Infection Protector* (SLIP) cover that can provide barrier protection from droplet infection and body fluids such as tears, and is likely to decrease the risk of infection due to the contact of a patient from hand rest, chin rest, and forehead rest during slit-lamp biomicroscopic examination (Fig. 1A). The use of the SLIP cover can be adopted by any ophthalmologist in independent or institutional practice. These can be made easily by any person from used gown material or equivalent, at no additional cost, with minimal technical expertise (see Supplemental Video, Supplemental Digital Content 1, http://links.lww.com/ICO/B81). Ten to 12 SLIP covers can be prepared from a single used operation theater gown. Depending on the patient load that an ophthalmologist has to examine in a single day, equal numbers of SLIP covers can be kept ready in the examination room. One SLIP cover can be easily mounted on a slit-lamp before examining a patient, which takes about 5 to 10 seconds, and removed after the examination. It should be put in hypochlorite solution after use for sterilization, and the next SLIP cover is mounted before examining the next patient. After examining all patients, all SLIP covers are in hypochlorite solution and ready for reuse on any other day. We have reused SLIP covers up to 5 times after sterilization without any change in quality. Minor surgical procedures such as subtenon injection, suture, and foreign body removal can be performed using the SLIP cover in outer patient department on the slit lamp examination using the SLIP cover (Fig. 1B).

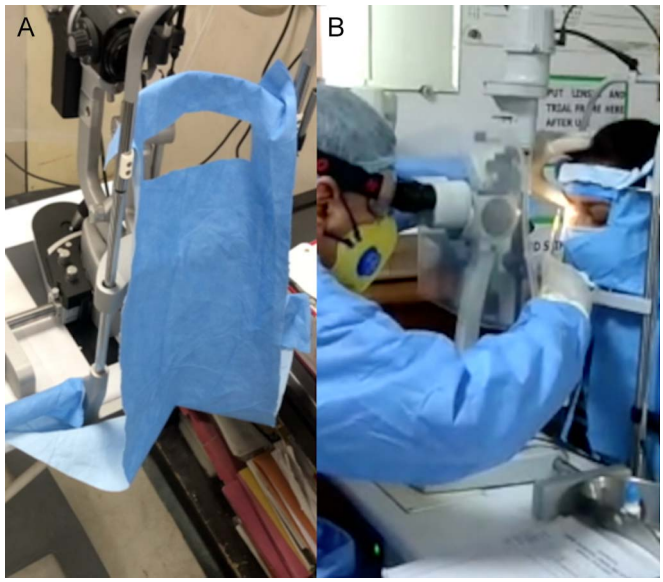

FIGURE 1. A, SLIP cover mounted on a slit lamp. (B) A patient being administered a subtenon injection with a SLIP cover on the slit lamp.

Many other protective methods have been recommended earlier, including the use of shields or surface disinfectants for a slit lamp examination. Slit-lamp shields are placed slightly away from a patients' mouth and nose and may not stop the release of aerosols over and around the slit lamp. Patients' forehead rest, chin rest, and hand rests will require the use of surface disinfectant before examining the next patient. Frequent use of alcohol-based aerosols may also lead to aerosol-induced dry eyes or skin problems.[4] The use of masks by patients is helpful, but ophthalmologists cannot control the quality and efficacy of the masks because many patients use home-made masks.

SLIP covers provide a low-cost alternative as barrier protector to both patient and ophthalmologist that can be used as a stand-alone or in addition to other modalities and may decrease the risk of spread of infection from patients to healthcare workers and vice versa. Its use can be extended to instruments such as optical coherence tomography, Fundus camera, and visual field analyzer. Further comparative studies will be required to ascertain the best modality regarding barrier protection to prevent the spread of infection.

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