Practical problems and possible work-arounds for indirect ophthalmoscopy with personal protective equipment

Dear Editor,

The Coronavirus disease (COVID-19) has altered the pattern of bedside ophthalmic examination. With an increase in secondary fungal infections, the need for dilated fundus examination in these cases of rhino-orbito-cerebral mucormycosis for prognostication has also increased.[1]

While indirect ophthalmoscopy is preferred in such settings, there are challenges in this procedure when used along with a personal protective equipment (PPE).

1. Maneuvering the headpiece of the indirect ophthalmoscope (IDO) over the face shield.
2. Glare from the face shield itself.[2,3]
3. Fogging of the face-shield or IDO.[4]

We would like to share some remedial measures that have worked for us in this regard [Fig. 1].

1. Ensure the PPE is tight and snugly fit over the head and face to avoid crumpling while placing the IDO.
2. Use a disposable face shield which is lightweight and can be tied low on the forehead.
3. Fit the IDO just above the face shield.
4. Bring the eyepiece as close to the face shield as possible, even touching it. This helps avoid glare.
5. Keep the IDO and the condensing lens chosen for examination in a straight line with the eye being assessed.[4]

Figure 1: Photograph showing recommended technique for indirect ophthalmoscopy (IDO) in personal protective equipment (PPE). A snugly fit PPE (red arrow) with disposable face shield (green arrow) and IDO just above it (brown arrow) with eye being assessed in a straight line (black arrow) with IDO and condensing lens

With the waxing and waning nature of the pandemic, it is probably advisable for ophthalmologists to retrain their skills with a PPE.

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