

Using smartphones for documenting bedside retinal findings during COVID-19 times

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DESCRIPTION

Bedside ophthalmology consultation for fundus evaluation was sought for three patients on respiratory support admitted in the COVID-19 ward. Patient 1 (figure 1A, known case of sarcoidosis) was found to have an exudative lesion with perilesional intraretinal bleed. The patient was planned for a fluorescein angiography after systemic stabilisation. Patient 2 (figure 1B, no other systemic illness) was found to have inferior atrophic retina with choroidal show and sharp demarcation line likely being a self-settled retinal detachment. Patient 3 (figure 1C, diagnosed case of rhino-orbital mucormycosis) had total ophthalmoplegia with central retinal artery occlusion.

All the photos (figure 1A–C) were captured using a smartphone^{1–5} on video mode and flash light on, placing the condensing 20 dioptre lens coaxially to the phone and the patient's pupil. Residents posted in COVID-19 wards, or other wards where critically ill patients are admitted, can be trained easily for this bedside fundus photography. An ophthalmologist can be contacted online for expert opinion, reducing unnecessary exposure. This can also be an aid for bedside documentation of retinal findings, daily monitoring and at places where an ophthalmologist might not be available round the clock.

To conclude, we propose the use of smartphone fundus photography to document retinal findings and also for an online consultation during COVID-19 times for ill patients to minimise exposure of ophthalmologists.

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Learning points

- ▶ Smartphones can be used to document bedside retinal findings, even by non-ophthalmologist healthcare workers.
- ▶ Additionally, during current COVID-19 times, this will make ophthalmology consultations safer by preventing unnecessary exposure.

Competing interests None declared.

Patient consent for publication Obtained.

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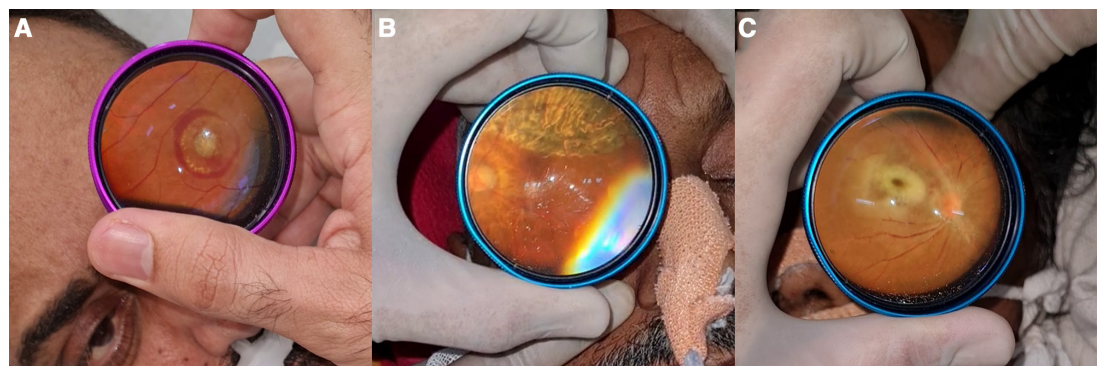


Figure 1 (A) Left eye of patient 1 having exudative lesion just inferotemporal to macula. (B) Right eye of patient 2 having inferior self-settled retinal detachment. (C) Left eye of patient three having central retinal artery occlusion.

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