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Comment on: 'Recent advances in anterior chamber angle imaging'

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We have read the article “Recent advances in anterior chamber imaging” by Porportao et al with great interest [1]. The article underlines a significant healthcare burden of primary angle-closure glaucoma, and we congratulate the authors for demonstrating utilisation of anterior segment optical coherence tomography (AS-OCT) for 360-degree visualisation of the angle. The article also provides a brief update on recent advances in gonio-imaging devices. A very concise and precise table also appraises the limitation of slit-lamp based gonioscopy.

The AS-OCT and the gonio-imaging devices have a very significant limitation of portability. In developing Asian countries such as India, the prevalence of PACG is similar to primary open-angle glaucoma [2]. The diagnosis relies solely on timely screening due to the asymptomatic nature of the major part of the disease's natural history. The majority of population do not have an annual eye check-up and miss the window for secondary intervention.

We have recently devised a novel technique to utilise a smartphone coupled with a four-mirror gonio-lens, termed as Direct Imaging of Gonioimaging by Smartphone (DIGS) [3]. The technique is slit-lamp independent and thus can be performed in community outreach camps, with the person in upright or supine position. It also overcomes the significant limitation of reproducibility and intra-observer variations of slit-lamp gonioscopy. By using a four-mirror gonio-lens, the smartphone images almost 360-degree of the anterior chamber angle in a single click and thus allows for very fast turn-around time. It allows for tele-consultation using the smartphone's internet capabilities, and also is a potent

patient education tool to sensitise them about their condition. DIGS is a low-cost innovation and thus has a potential for a wider deployment when compared with other dedicated imaging devices such as AS-OCT or NGS-1 (NIDEK Co., Japan).

AS-OCT imaging though holds an advantage by imaging the angle in minimal illumination and quantification of the anterior chamber depth, and thus has a better diagnostic implication. DIGS, limited by the dependency of flash and small sensors of the smartphone camera, but by merits of its portability and universal application can be a potential screening tool in community outreach programs.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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