ELIMINATING MYDRIASIS PRIOR TO IMAGING PATIENTS WITH AGE-RELATED MACULAR DEGENERATION: IMPACT ON SCAN QUALITY, APPOINTMENT LENGTHS AND COST

Saad Mahmud Khan, S-L Watson

Department of Ophthalmology, Royal Berkshire Hospital, UK

Purpose: Patients with age-related macular degeneration undergo visual acuity testing and OCT scanning at follow-up in one-stop clinics to determine treatment interval for intravitreal injections. Prior to eye imaging, mydriasis is routinely undertaken to supposedly obtain an adequate scan. With the introduction of scanning devices allowing us to obtain high resolution images even in patients with small pupils, mydriasis may not even be needed. Moreover, the pandemic has necessitated that hospitals ensure efficient flow of patients through clinics. This study investigated if the mydriasis step can be removed without impacting on image quality, and the effect this has on appointment length and cost.

Methods: Demographic information, clinical details, fundus, and optical coherence tomography (OCT) images along with appointment lengths were collected for patient groups with and without pupil dilation. The quality of both fundus and OCT images were graded using a set of pre-specified criteria.

Results: This study included 105 patients and 210 eyes. Fundus image quality was adequate in 82% of dilated eyes compared to 78% of undilated eyes ($\chi^2=0.349; p=0.554$). The OCT image quality was adequate in 86% of dilated eyes and 94% of undilated eyes ($\chi^2=2.863; p=0.091$). The presence of cataracts had no significant impact on image quality. Not performing mydriasis led to an over one-third reduction in appointment length and an approximately £4000 annual cost saving.

Conclusions: Not dilating pupils does not significantly impact on image quality. This leads to shorter patient appointments and hospital cost-saving. The “no dilation” policy would be beneficial to the current COVID working practices, which will be the new norm without any compromise to patient care.

Financial: No funding

Disclosure: No