

Time-to-First-Treatment and Outcomes in Patients with Wet AMD Referred to Ophthalmology Pre - and During the COVID-19 Pandemic

L. O'Brien, A. O'Regan, N. Horgan

Department of Ophthalmology, St. Vincent's University Hospital Dublin; Ireland.

Dear Sir,

Age-related Macular Degeneration (AMD) is the leading cause of blindness in older people.¹ Wet or neovascular AMD is characterised by the formation of subretinal choroidal neovascularisation, leading to sudden and severe visual loss.¹ Treatment involves intra-vitreous injections of anti-vascular endothelial growth factor (anti-VEGF) therapy.¹ Due to the COVID-19 pandemic, many medical services including outpatient ophthalmology care have been impacted. A retrospective review of patients with wet AMD referred to our department before and during the COVID-19 pandemic was undertaken. The aim of the study was to compare the time interval to treatment for patients before and during the pandemic, to compare clinical outcomes by assessing visual acuity and to assess compliance with international management guidelines.²

Patients were divided into two groups based on referral date – group A (pre-pandemic) were referred before the pandemic was declared by the WHO on 11/03/2020 and group B (during pandemic) were referred from 11/03/2020 onwards. Healthcare records for these patients were reviewed and data was recorded confidentially in line with the GDPR after approval from our hospital clinical audit committee.

There were 14 patients in each group. Group A consisted of six males (42.9%) and eight females (57.1%), group B consisted of 7 males (50%) and 7 females (50%). The median age of patients in group A was 73 years (IQR 69-86) and in group B was 75 years (IQR 63-84). Median baseline visual acuity (LogMAR) in group A was 0.48 (IQR 0.4-0.9) and in group B it was also 0.48 (IQR 0.35-0.85). The median interval from GP referral to first anti-VEGF injection in group A was 50 days (IQR 43-91) compared to 70 days in group B (IQR 38.5-86.5). The median interval between GP referral to the third injection in group A was 120 days (IQR 93-143) and in group B it was 140.5 days (IQR 116-167). Median visual acuity after the third anti-VEGF injection (LogMAR) in group A was 0.5 (IQR 0.4-0.78) and in group B it was 0.4 (IQR 0.18-0.8).

Time from GP referral to commencement of treatment was prolonged by 20 days for Group B (during pandemic), reflecting the delays in routine medical care as a result of the pandemic. However, baseline visual acuity was the same in both groups, suggesting that patients in Group B were not presenting at a more advanced stage in the disease process despite service delays. The interval between GP referral and third injection was also longer in group B (during pandemic) by a median of 20.5 days. Despite this, visual acuity after the third injection was slightly improved in the pandemic cohort from a median LogMAR of 0.48 before treatment to a median LogMAR of 0.4 after treatment. The Royal College of Ophthalmologists guidelines for the management of AMD recommend that anti-VEGF treatment should be commenced within two weeks of initial symptom development or detection of a treatable lesion. In order to cut down the time interval we are currently working on implementing a one-stop assess and treat clinic, whereby patients would be seen by ophthalmology, diagnosed with wet AMD and receive their first anti-VEGF injection in one clinic visit.

Corresponding Author:

Luke O'Brien,
St. Vincent's University Hospital,
Dublin,
Ireland.
E-Mail: luke.o-brien.1@ucdconnect.ie

References:

1. Jensen, E., Jakobsen, T., Thiel, S., Askou, A. and Corydon, T., 2020. Associations between the Complement System and Choroidal Neovascularization in Wet Age-Related Macular Degeneration. *International Journal of Molecular Sciences*, [online] 21(24), p.9752. Available at: <<https://www.mdpi.com/1422-0067/21/24/9752>>.
2. Royal College of Ophthalmologists; Clinical practice guidelines for the management of age-related macular degeneration: 2013. Available at: < https://www.rcophth.ac.uk/wp-content/uploads/2014/12/AMD-guidance-25-11-13-2013_PROF_262.pdf>.