A retrospective review of retinal vein occlusion (RVO) outcomes during lockdown

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Background

The United Kingdom was in lockdown from 23rd of March 2020 till June/July 2020.

This resulted in a temporary reduction or postponement of elective and nun-urgent health services and procedures.

During this period, in order to minimise face to face appointments, intravitreal injections continued independent of ETDRS or optical coherence tomography (OCT) data for the management of AMD.

National webinars involving leading UK ophthalmologists decided that the intravitreal treatment for diabetic macular oedema (DMO) and macular oedema secondary to RVO should be delayed for 3 months.
We adopted this policy at Luton & Dunstable excluding those patients who wished to receive treatment (for example only eyes) (understanding the risks of COVID transmission).

Methodology

The clinical notes of 120 patients with retinal vein occlusions (57F, 63M (average age 74.75) were assessed retrospectively.

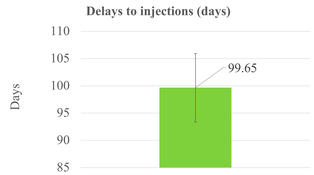
ETDRS VA and optical coherence tomography (OCT) thickness data from appointments just prior to lockdown was compared to the values taken on their first appointments in clinic after the lockdown ended.

Not all patients had both ETDRS and OCT data
Patients were also subdivided further into those with branch retinal vein occlusion (BRVO) and central retinal vein occlusion (CRVO).

Results

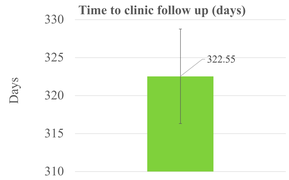
Delays to injection (days)

Whilst 5 patients failed to attend appointments during the 1st lockdown period lockdown, 115 patients had delayed injections.
Patients had on average 1 injection over this time.
The average delay for injections as a result of the lockdown for these patients was 100 days (95% CI 87-112).



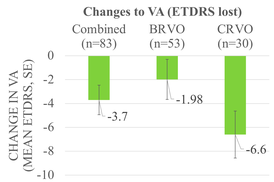
Time to clinic follow up (days)

The average time to clinic follow-up from when patients were seen prior to lockdown was 323 days (95% CI 310-334).



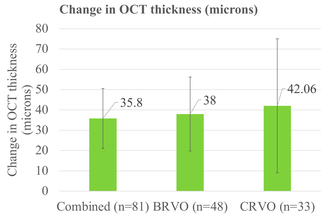
Changes to visual acuity

Patients lost on average about 4 letters on the ETDRS chart.
When subdivided, patients with BRVO lost on average 2 ETDRS letters (SEM ± 1.67). CRVO patients lost on average almost 7 ETDRS letters (SEM ± 1.97).
A significant difference was found between BRVO and CRVO cohorts (p=0.039)



OCT thickness

There was an average increase of about 36microns in OCT thickness (± 14 SEM).
When subdivided, there was an average increase of 38microns in the BRVO cohort (±18.2 SEM) and 42microns in the CRVO cohort (±33 SEM).
No significant difference was found between BRVO and CRVO groups (p= 0.45)



Discussions and Conclusion

During the 5-month lockdown period patients received 1 intravitreal injection on average. Across both RVO groups patients lost on average 4 letters on the ETDRS chart with increased thickness of 27 microns on average. We did see a small difference between CRVO and BRVO groups in terms of ETDRS letters lost and OCT thickness, but this study was not powered to assess if this difference was significant.

A number of studies have assessed the VA outcomes in patients who experience prolonged gaps between treatment and follow up appointments.
Most of these studies are in cohorts of patients with DMO and nAMD.

It is well established that lapses in regular anti-VEGF treatment in these patients are associated with poor visual outcomes.
This small study suggests that in the RVO group as a whole, a delay of about 100 days is not severely detrimental to VA

There may be an argument for prioritizing patients with CRVO as this cohort seemed to be more affected by delays in treatment

References

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