EFFECT OF COVID-19 ASSOCIATED LOCKDOWN ON PATIENTS WITH DIABETIC RETINOPATHY: REAL-WORLD EXPERIENCE FROM A TERTIARY CENTER IN GREECE

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Purpose: To evaluate the effect of COVID-19-related lockdown in the management of patients with diabetic retinopathy (DR), including diabetic macular edema (DME), in a tertiary reference center in Greece.

Methods: In this retrospective study, we first compared the number of patients, who were diagnosed with DR or DME in our clinic during the period of lockdown and during the same period of the previous year. In addition, we included consecutive patients with DR or DME, who were followed-up and treated regularly in our clinic and their appointments deferred due to lockdown, so as to compare the visual acuity, fundoscopy and optical coherence tomography (OCT) findings prior and post lockdown.

Results: During the lockdown period, there was a statistically significant decrease in patients with DR and DME, who were diagnosed and treated in our clinic, compared to the same period in the previous year. Regarding patients with previously diagnosed DME, there was a statistically significant worsening in their visual acuity and central retinal thickness at the first visit after lockdown compared to the last visit before lockdown (p<0.001 for both comparisons). Concerning patients diagnosed with DR and without DME before lockdown, 3 out of 10 patients (30%) with severe non-proliferative diabetic retinopathy (NDPR) and one out of 12 patients (8.3%) with quiescent proliferative DR (PDR) progressed to active PDR, while 4 out of 107 patients (3.7%) developed DME during the lockdown. Multivariate regression analysis revealed that only the time interval between last visit before lockdown and first visit after lockdown was associated with the BCVA change (p=0.017), while a trend was found for DR stage (p=0.052).

Conclusions: The COVID-19-related lockdown was related to postponement in patient care, which resulted in significantly worse visual acuity outcomes in patients with DR.

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