

## 6. MODERN METHODS OF EXAMINATION IN DIABETIC RETINOPATHY

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**Introduction.** Diabetic retinopathy is one of the most common microvascular complications of the retina in diabetes and can progress asymptotically until there is a clear loss of visual function. These include micro-aneurysms, bleeding, exudates and macular edema that occur during diabetes for at least a few years. Modern examination methods are: optical coherence tomography, fundus photography and contrast angiography. In 2020, more than 95 million adults in the world's diabetic population had various forms of RD. The existence and use of a unique classification, internationally recognized by both ophthalmologists, endocrinologists and therapists is mandatory in ensuring a unanimous diagnosis, a complementary and effective treatment of the pathology. To achieve this goal it is necessary the interaction of doctors of different specialties, diabetic retinopathy and diabetes being a multisystemic, multifactorial pathology.

**Case presentation.** Between September 2021 and February 2022, in the Clinical Department of Ophthalmology of the Municipal Hospital "Holy Trinity" were studied 55 patients with diabetic retinopathy and analysed the methods of investigation to determine the most relevant diagnosis among the existing ones.

**Discussion.** Out of a total of 55 patients, 32 cases (58.18%) were women and 23 (41.81%) were men. After the OCT examination, we had 69.09% (38 patients) with RDNP, 23.63% (13 patients) with RDP, and at 7.24% (4 patients) we did not detect signs of diabetic retinopathy. The majority of patients (58.18% - 32 patients) were aged between 50 and 59 years, and of these 75% (24 cases) were with RDNP and 25% (8 cases) were with RDP. After biomicroscopic examination of FO, we had 61.81% (34 patients) with RDNP, 32.72% (18 patients) with RDP, and at 5.45% (3 patients) we found no signs of diabetic retinopathy. The majority of patients (52.72% - 29 patients) were aged between 60 and 75 years, and of these 79.31% (23 cases) were with RDNP and 20.68% (6 cases) were with RDP. After the AFG examination, we had 54.54% (30 patients) with RDNP and 43.63% (24 patients) with RDP, and at 1.81% (1 patient) we found no signs of diabetic retinopathy. The majority of patients (58.18% - 32 cases) were aged between 51 and 59 years, and of these 68.75% (22 cases) were with RDNP and 31.25% (10 cases) were with RDP.

**Conclusion.** Optical coherence tomography (OCT) is a non-invasive, non-contact, modern method of early detecting diabetic retinopathy and remains the most relevant method of detecting early signs in the development of diabetic retinopathy. Angiography remains a gold-standard method for detecting vascular changes in diabetic retinopathy. Photography of the fundus has the advantage of creating a permanent and dynamic record of diabetic retinopathy.