

Project title:

INTRODUCING AN INTERNET BASED SCREENING PROGRAM FOR MACULAR DISEASES (AMD,DMO) AND PROVIDING ADDITIONAL TRAINING FOR RETINA SPECIALISTS.

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Purpose:

The purpose of the project is to enhance the early diagnostics and treatment of macular diseases in Bulgaria and in general by establishing a new internet based screening programme for macular diseases and creating a network of reading centers in the country for estimating the screening results. Furthermore, to provide additional training for retina specialist who to be able to provide sufficient treatment of patients with retinal pathologies.

Methods:

In close cooperation between Bulgarian- American Eye Institute “ Prolight” and the American “ Keep your sight” foundation we have created and launched in Bulgaria an internet based screening programme for Macular diseases called MACUTEST. It is an electronic sophisticated version of the Amsler grid test, representing an automatic dynamic testing. It is a combination of microperimetry, retinal photo- stress test and nipper visus algorithms. The screening programme is launched under the web site “Spasi ochi. com” and we have created 2 reading centers in Sofia and plan one to be created in the country. We are planning to organize a one-day seminars for ophthalmologists in training, where the topic of macular diseases and on line screening to be broadly discussed.

Results:

In the first 6-7 months of launching of the programme about 789 people have visited the site and performed the test. The test shows to be easy to do, with few instructions, which are easy to follow on the screen. It is easy accessible, done at home on home computer. It has 6 parts, one for central visual acuity, 2 parts are sophisticated central Amsler grid tests, 1 is for the periphery of the retina, and the last two are for finding minor defects in the central visual field.

All the parts were well completed by the patients and a very few under 2% incorrect tests were received in the reading centers. We have been working with 2 teams in the reading centers in Sofia- in” Prolight” and” Zrenie” to be able to access all the patients with the results within 48 hours after the completion of the screening. The patients with macular problems has been referred to the nearest ophthalmological practice or to our centers for further investigations.

In the group of patients (436), who came to us after the test - the majority (321) were with different forms and stages of AMD, about 101 were with Diabetic retinopathy changes and macular edema, 8 were with traumatic maculopathy and 2 with congenital macular diseases.

Conclusion:

Macular diseases are a large group of eye disorders whose early detection is of substantial importance for their successful treatment. The MACUTEST is a screening test, which can be done at home, easily and without specialized equipment. It has proven to be extremely useful in finding patients with macular disorders especially AMD and enables their quick hospitalization and treatment. Creating a network of reading centers and launching a screening program for macular diseases facilitates the appropriate treatment of these patients in my country and is a way to be in concordance with the initiative Vision 2020 for declining the number of people visually impaired by macular diseases.