

RESULTS FROM THE OPHTHALMOLOGY TRAINING OF GENERAL PRACTITIONERS

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ABSTRACT

Background: Family physicians are the first that a patient with ophthalmic problem meets. Their role is to recognize harmless eye conditions from the ones that need urgent ophthalmic care.

Aims and tasks: Assessing the knowledge of general practice residents before and after series of ophthalmology lectures

Methods and materials: Written test examination was given to 28 general practice residents before and after series of ophthalmology lectures emphasizing on the most often met ophthalmic problems in general practice.

Results: Before the lectures the middle success rate in the test was 56,045%, after that it raised significantly. Before the educational course the results were pretty concerning, because general practitioners had very little knowledge on some sight threatening diseases like iridocyclitis, acute glaucoma and chemical eye burns.

Conclusion: The result of the educational course with the residents in general practice was very good. Short educational courses would raise the level of primary care. The level of interest and willingness of general practitioners and ophthalmologists in taking part of additional educational courses in ophthalmology should be checked.

Key words: education, tests, general practitioners

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Results: A textbook called "Actual aspects of general medical practice"-by assoc. prof. Despotova- Toleva was created in 2009 in order to support the theoretical training of general practice residents. It includes chapter called- "Basic eye problems in general medical practice"- A. Teodosieva, N. Sivkova, D. Petkova(4) In 2011 we created a handbook called "Practical lessons for general practice - module ophthalmology" with authors- Zl. Trifonov, L. Despotova- Toleva, K. Trifonova, Kiril Slaveykov. (10) It was created in order to support the practical lessons of the residents. Later in 2011 again for the purposes of general practitioner's training assoc. prof. Zl. Trifonov created "Red eye- diagnostics and treatment in general practice" (9) It was created considering the curriculum given by the Ministry of Health and the active laws.

In our study in the Department of Ophthalmology and General medicine we gave written test examination to 28 general practice residents before and after series of lectures, created in a way to emphasize on ophthalmic problems in general practice settings. The questions included diseases, connected with the red eye syndrome, urgent conditions in ophthalmology and socially important diseases such as diabetic retinopathy, glaucoma and eye diseases connected with the aging of the nation like- cataract and age-related macular degeneration (ARMD). The test included 19 questions with multiple choice answers. The twentieth question had five pictures with eye diseases that are often met in the anterior eye segment that the participants had to recognize. The middle percentage of right answers of the participants in the examination was 56,045%.

For some of the questions the success rate was very high. 100% of the residents answered correctly that retinoblastoma is malignant and most often inherited disease (20). It is curable when diagnosed in time and treated properly. A multidisciplinary approach is needed for its detection and treatment. (11)

The National Healthcare Insurance Fund in Bulgaria has developed for children from 0 to 18 years the programme "Child Healthcare". This programme is implemented by the child's GP or specialist in pediatrics. It defines all the prevention activities (examinations, investigations, immunizations) that are required to monitor the growth and development of the child, from birth to 18 years old. (7) GPs could have very serious part in the early detection of diseases such as congenital cataract, amblyopia, strabismus, retinoblastoma, which is the only guarantee for the maximum possible visual result. (19) For this reason, the test focused on this knowledge of general practice residents. It turned out that 91% know that visual acuity should be checked for the first time at the age of 3-4 years of age. However, only 59.1% know that lazy eye best responds to treatment at the preschool period. 31.8% of them believe that it can be cured at any age, and 9.1% believe that some children outgrow it by themselves. (14)

In Bulgaria from 20-22.07.2009 on a meeting in Varna was developed the national programme for screening and treatment of retinopathy of prematurity. (8) In our country the criterion for screening for retinopathy of prematurity is assumed to be age-before 32 g.w. and under 1500g as well as children weighing less than 2000g who are on artificial ventilation, have intracranial hemorrhage, have had exchange transfusion, intrapartum severe asphyxia, sepsis. First examination is required four weeks after birth and control examinations should be performed every 2 weeks. According to the study 59% of the residents have answered correctly, that newborns at risk for retinopathy of prematurity have to be examined 4-6 weeks after birth, and 41% responded that this should happen immediately after birth.

Despite the priority of care for diabetics in our country, according to an article from 2007, in which 112 patients over 65 with diabetes type 2 were studied, 70% of diabetics' detection is accidental and happens when examination for a different disease is performed which determines the late diagnosis- 7-8 years after initial metabolic changes. (3) In 1995 in Pirdop and Koprivshitsa a screening study, which was the first of such kind, was performed. They found that only 49% of diabetic patients had been examined by an ophthalmologist with pupil dilatation, this percentage reached 61% of those in need of emergency treatment. (2) Recommendations of the Bulgarian Society of Endocrinology for good practice are as follows: patients with diabetes type 1 have to be examined by an ophthalmologist three to five years after the diagnosis, and type 2 diabetes soon after diagnosis. Then the follow-up examination should be conducted annually. (1) The test proved that a relatively high percentage (86.3%) know that patients with noninsulin-dependent diabetes mellitus should be examined by an ophthalmologist for funduscopy changes immediately after the discovery of diabetes, but also 81.8% believe that patients with insulin dependent diabetes should be tested immediately after discovery.

The aging eye goes through a series of structural and physiological changes. Preventive measures in old age and early in life may help the delay of these changes and reduce morbidity. (16) Most of the residents have relatively good knowledge about eye diseases associated with aging as cataract and age-related macular degeneration (ARMD). 81.8% know that the main complaints in ARMD are central scotoma and metamorphopsias and 51% that smoking is a major risk factor for this disease. 70% know that cataracts cannot be cured with pills and drops.

Many patients at risk for glaucoma attend their family physicians every day - such as the elderly, those with positive family history and diabetes. That is why, general practice is preferred location for screening of this disease. (17) Unfortunately, almost all participants in the study believe that pain and blurred vision are early symptoms of primary open-angle glaucoma. This means that

they are not aware of the nature of the disease. 72 have the wrong idea that all patients with glaucoma have ocular hypertension.

Some other results from the test are quite alarming, only 22.7% and 40.9% respectively of GPs are aware of the objective findings in acute glaucoma attack and iridocyclitis, which corresponds to the recognition of their photographs, respectively, 22.7 % and 36.4% of them have recognized the pictures. (6) 63% know that the basic triad of symptoms for keratitis is lacrimation, blepharospasm and photophobia, but almost nobody recognizes the condition on a picture. Relatively satisfactory (75%) percent of the examined are aware of the contraindications for placement of atropine in patients with glaucoma attack.

Only 27.2% knew that it is a mistake to put an eye patch after burning with acid or base. The lack of such knowledge can lead to extremely serious consequences. 36.4% believe that it is wrong to put antibiotic drops and tetanus vaccine, but these actions are major steps in these incidents. This means that specialists in general medicine cannot deal with urgent eye conditions. (5)

Many studies show that knowledge of primary care physicians in eye diseases could significantly increase after a short training. In 1997 British study, which involved GPs who have undergone training in ophthalmology, 96% thought it was useful and 91.7% continued to use some practical skills. (13) Research on improving the knowledge and skills of recognition of diabetic retinopathy was conducted in Australia in 2003. General practitioners had written examination before and after intensive training. The success rate was 53% before training, against 84% after training. Before training they guessed 44% of the photographs and 53% after. (12) In India series of seminars on eye health were conducted, which involved 865 primary care physicians. They were given questionnaires regarding the distribution and the most common causes of blindness, and various issues concerning the control of blindness. The results after training significantly improved. (15)

In order to check the results of the series of lectures in our study, at the end, we gave the test examination again to the general practice residents. There was a great improvement in the percent of right answers, as in the multiple- choice questions and in the picture recognition. The success rate raised to almost 30%, as the middle result of right answers was 85,7%.

Conclusion: The admission test which was held by general practice residents, showed lack of knowledge in some fields of ophthalmology, which could lead to fatal consequences for vision. The conducted lectures on ophthalmology were very specific and focused on the most important information concerning patients with eye problems in general practice. The result of the training in ophthalmology of general practice trainees was very good. Holding other training courses of general practitioners on the most important and common eye diseases in general practice, would substantially increase the level of primary care. In the future, the interest and willingness of general practitioners and ophthalmologists to participate in additional training should be assessed.

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