

Unilateral Painless Vision Loss Detected Incidentally During the Driver's Health Examination at the Family Medicine Polyclinic: Case Report

Aile Hekimliği Polikliniğinde Sürücü Sağlık Muayenesinde Tesadüfen Saptanan Tek Tarafli Ağrısız Görme Kaybı: Olgu Sunumu

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ABSTRACT

Introduction: Family medicine encompasses a unique set of competencies and characteristics aimed at providing primary care with a patient-centered focus. In this paper, we aimed to present a case study demonstrating how family practice competencies were utilized in the management of central retinal vein occlusion (CRVO).

Case: A 48-year-old diabetic man, seeking a driving license health report, presented without complaints. Even though he self-reported normal vision, a comprehensive examination revealed a visual loss in his left eye, leading to a diagnosis of CRVO. Despite the absence of typical risk factors such as hypertension or hyperlipidemia, detailed examination and comprehensive evaluation of the patient offered the patient a chance for diagnosis and treatment.

Discussion: CRVO often manifests as painless unilateral vision loss. Family physicians play a crucial role in early detection through comprehensive assessments, even in asymptomatic patients. Rapidly diagnosis and prompt referral to ophthalmologists allow for timely intervention, as seen in this case where intravitreal bevacizumab injections led to improved visual acuity.

Conclusion: This case highlights the importance of family physicians detecting signs of disease, in patients without obvious symptoms. Family physicians contribute to the early diagnosis and effective management of many diseases with their comprehensive approach and patient-oriented care.

Keywords: Family practice, comprehensive health care, vision loss, central retinal vein occlusion

Öz

Giriş: Aile hekimliği, hasta merkezli, birinci basamak sağlık hizmeti sunan, benzersiz bir dizi yeterlilik ve özelliği sahip bir tıp disiplini. Bu vaka takdiminde, aile hekimliği çekirdek yeterliliklerinin kullanılarak santral retinal ven tıkanıklığının (CRVO) tanısı ve yönetiminin tartışıldığı bir vaka sunmayı amaçladık.

Vaka: Ehliyet sağlık raporu almak isteyen 48 yaşındaki diyabet tanılı erkek hasta şikayetsiz olarak başvurdu. Görüşünün normal olduğunu bildirmesine rağmen, kapsamlı muayene sonucunda sol gözde görme kaybı olduğu tespit edildi. Hastaya ileri değerlendirme ile CRVO tanısı konuldu. Hipertansiyon veya hiperlipidemi gibi tipik risk faktörlerinin bulunmamasına rağmen hastanın ayrıntılı muayenesi ve kapsamlı değerlendirilmesi hastaya tanı ve tedavi şansı sunmuştur.

Tartışma: CRVO sıklıkla ağrısız tek tarafli görme kaybı olarak kendini gösterir. Aile hekimleri, asemptomatik hastalarda bile kapsamlı değerlendirmeler yaparak erken teşhisin sağlanmasında önemli bir rol oynamaktadır. Hızlı tanı ve oftalmologlara hızlı sevk; intravitreal bevacizumab enjeksiyonlarının görme keskinliğinde iyileşme sağladığı bu vakada görüldüğü gibi zamanında müdahaleye olanak tanır.

Sonuç: Bu vaka, aile hekimlerinin, belirgin semptomları olmayan hastalarda bile, hastalıkların bulgularını tespit etmelerinin önemini vurgulamaktadır. Aile hekimleri kapsamlı yaklaşımları ve hasta odaklı bakımlarıyla birçok hastalığın erken tanısına ve etkili yönetimine katkıda bulunur.

Anahtar Kelimeler: Aile hekimliği, kapsamlı sağlık yaklaşımı, görme kaybı, santral retinal ven oklüzyonu

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Introduction

Family medicine is defined by WONCA (World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians) Europe as an academic and scientific discipline, with its own educational content, research, evidence base and clinical activity, and a clinical specialty orientated to primary care. It is also considered as a primary care-focused clinical specialty (1). Family Medicine has six accepted core competencies and twelve fundamental characteristics. The core competencies of Family Medicine include primary care management, person-centered care, specific problem-solving skills, comprehensive approach, community orientation, and holistic modeling (1,2). Twelve characteristics that family physicians must have are within the scope of these core competencies. Family physicians are the first point of contact in the healthcare system, a requirement of primary care management, and they care for all patients regardless of age, gender, or disease. They ensure coordination with other health professionals, institutions, and organizations. They have an advocacy role for the patient when needed. Family physicians provide person-centered care for the individual, family, and society, contribute to improving health, and provide continuous care services. They also effectively communicate with patients to establish a unique patient-physician relationship.

In family medicine, diseases occur at a frequency close to societal prevalence, which requires a special decision-making process. Both acute and chronic diseases are managed simultaneously, and this is made possible by the core competency of family medicine, which is specific problem-solving skills. Thanks to the comprehensive approach, undifferentiated disorders in the early stages of development and requiring urgent intervention are managed, treating each encounter as an opportunity for general assessment. These approaches assist in diagnosing diseases, even if the individual does not present with any complaints yet. Family doctors develop both the patient and the environment in which they live.

Family medicine's society-oriented nature indicates its responsibilities regarding the health of society and the environment. A holistic perspective requires addressing health problems in terms of their physical, spiritual, social, cultural, environmental, and existential dimensions (3). The family physician utilizes these core competencies and associated fundamental characteristics in patient examination and follow-up.

Retinal vein occlusion describes a group of diseases where the venous return of the retina is compromised. Depending on the location of the occlusion, it is classified as branch retinal vein occlusion (BRVO), hemiretinal vein occlusion (HRVO), or central retinal vein occlusion (CRVO) (4). CRVO is often associated with systemic atherosclerotic diseases and risk factors (5). CRVO is a leading cause of vision loss, particularly in elderly individuals, with an estimated global prevalence of 0.08% (6). CRVO can be of ischemic and non-ischemic type. While ischemic CRVO is more common in people over the age of 65, non-ischemic CRVO can also be seen in young adults. Ischemic CRVO has more than 10 nonperfused disc spaces. The large number of nonperfused disc areas increases the risk of neovascularization and subsequent development of neovascular glaucoma. In ischemic CRVO, visual acuity is usually less than 6/60. Nonperfused disc areas are rarely seen in non-ischemic CRVO. Vision is usually above 6/60, with post-treatment vision generally satisfactory. Macular edema can be seen in both types. About 23-30% of non-ischemic CRVO can turn into ischemic CRVO. Visual acuity, relative afferent pupil defect, Electroretinography, Goldmann perimetry, and fundus fluorescein angiography can be used to differentiate ischemic

from non-ischemic CRVO (7,8). Cases of retinal vein occlusion present with a wide spectrum of symptoms, ranging from asymptomatic to loss of light perception (4).

This article aims to present a case study showing how the core competencies and fundamental characteristics of Family Medicine, especially the use of comprehensive care and a patient-centered approach, contribute to the diagnosis of CRVO.

Case

A 48-year-old diabetic man applied for a driving license health report. He did not have any complaints about his health. He even mentioned his vision as normal on his individual health information form. In his medical history, he had diabetes mellitus type II for 6 months. He did not have hypertension or cardiovascular or cerebrovascular diseases. He is a non-smoker.

He is overweight, with a body mass index of 30 kg per m². He is taking empagliflozine and metformin. His blood pressure was 128/85 mm Hg, and his pulse was 90 beats per minute.

During his eye examination, Snellen's chart visual acuity showed 6/20 in his left eye and 6/6 in his right eye. All other system examinations were normal. He did not describe any trauma, headache, palpitations, eye pain, eye discharge, itching of the eye, or other neurological symptoms. No afferent pupillary defect was noted. Blood tests were normal, including complete blood cell count, coagulation tests, kidney and liver functions, blood glucose, and lipid profile. HbA1c was 6.6%.

On fundoscopic examination, macular edema was seen in the left eye, and the right eye was normal. The patient was referred to an ophthalmologist for further investigation and later diagnosed with central retinal vein occlusion (CRVO). His intraocular pressures were normal in both eyes. The patient was treated with intravitreal Bevacizumab injections at one-month intervals for three months. The visual acuity following injections was 6/6 in both eyes.

Discussion

Health report examination is quite common in family medicine practices in Turkey. Many reports are requested from family physicians, such as a driver's health report during the process of obtaining and renewing a driver's license, a marriage health report before marriage, an employment health report when applying for a job and recruitment, an athlete health report when obtaining an athlete's license, military recruitment health report during military recruitment, mental health report in case of old age or illness, and a smoothbore shotgun report. These applications provide an opportunity for comprehensive evaluation for family physicians. As a requirement of the comprehensive approach, one of the core competencies of Family Medicine, examination for reports needs to be performed comprehensively, even if the patient does not report any complaints. Some findings can be revealed through detailed medical examination, even if the patient has no complaints.

In family medicine practice, complaints-free applications and undifferentiated disorders are frequently observed. Undifferentiated disorders refer to disorders that are seen in the early stages of the disease, where the picture is not well established and do not give a clear clue for diagnosis. In complaints-free applications, patients apply for periodic health examinations, screenings, and to get health reports. In both cases, family physicians must carefully examine the application and follow the patient with decision-making methods specific to the family medicine discipline.

The patient can miss unilateral vision loss because one-sided vision loss can be compensated by the healthy side. Central retinal

vein occlusion is one of the most common diseases causing unilateral vision loss. It is characterized by the occlusion of the retinal vein due to thrombosis. This leads to retinal hemorrhages and macular edema.

There are several risk factors that are thought to have an impact on the occurrence of CRVO. Advanced age, hypertension, hyperlipidemia, diabetes mellitus, oral contraceptive pill usage, raised intraocular pressure, smoking, and other rare causes are some of the risk factors for CRVO (9). However, in our case, there were no other risk factors other than diabetes, where blood sugar was not very high. This shows us the importance of comprehensive examination even if patients have no risk factors and/or symptoms.

CRVO usually presents as a painless unilateral loss of vision in of patients who often have other health issues such as high blood pressure, diabetes, glaucoma, and blood diseases. Macular edema (ME) is a complication of CRVO and is the primary reason for loss of vision in this condition (10). As a family physician, when we detect moderate/high-grade vision loss, we need to refer the patient to a specialist ophthalmologist in order to detect the underlying disease, prevent complications, and provide early treatment.

The available treatments for CRVO include Panretinal photocoagulation, anti-VEGF therapy, intravitreal injection of steroids, intravitreal injection of tissue plasminogen activator (tPA), and pars plana vitrectomy. Bevacizumab, ranibizumab, aflibercept, and triamcinolone appear to be effective in treating macular edema secondary to CRVO (11). Bevacizumab can effectively improve best-corrected visual acuity and reduce central macular thickness in patients with macular edema secondary to central retinal vein occlusion without systemic side effects (12).

Conclusion

Unilateral vision loss may be compensated by the healthy eye, and this may cause the patient to be unaware of this important sign. One of the most common reasons for unilateral vision loss is CRVO, which can be easily recognized by fundoscopic examination and treated successfully by intravitreal injections, resulting in improved visual acuity. Applications without complaints, such as requests for a health report, are frequently encountered in family medicine practice. Family physicians contribute to the early diagnosis and effective management of many diseases with their comprehensive approach and patient-oriented care in these applications without complaints. Therefore, family physicians have an important role in the early diagnosis of the disease and in guiding the patient.

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