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Evaluation of Health Board Documents Referred to the Tertiary Hospital for Objection and Referral in Terms of Ophthalmology

İtiraz ve Sevk Nedeni ile Üçüncü Basamak Hastaneye Yönlendirilen Sağlık Kurulu Evraklarının Göz Hastalıkları Açısından Değerlendirilmesi

Mehmet Egemen Karataş[1], Gamze Karataş[2]

[1]*University of Health Sciences Türkiye, Şişli Hamidiye Etfal Training and Research Hospital, Clinic of Ophthalmology, İstanbul, Türkiye*

[2]*University of Health Sciences Türkiye, Prof. Dr. Cemil Taşcıoğlu City Hospital, Clinic of Ophthalmology, İstanbul, Türkiye*

ABSTRACT

Background: Medical board examinations and scoring form a substantial part of the workload for specialized physicians in Türkiye. This study evaluates these tasks from the perspective of ophthalmology specialists and compares the ophthalmologic examination findings and disability scores recorded at our hospital with those from external centers in cases referred for objection or referral.

Materials and Methods: A retrospective review was conducted on patient files from our health board between December 2022 and January 2025. Patients were classified into an objection group (those contesting evaluations) and a referral group (those referred due to device limitations or other reasons). Ophthalmologic examination findings and disability scores from both our hospital and external centers were recorded. The proportions of patients receiving disability scores, their diagnoses, and the reasons for objection and referral were analyzed and compared.

Results: A total of 70 patients were included: 58 in the objection group and 12 in the referral group. In the objection group, 58.6% were male with a mean age of 58.3±17.6 years; in the referral group, gender distribution was equal and the mean age was 51.4±9.1 years. Within the objection group, 15.5% had higher external disability scores, 20.6% had lower scores, and 63.9% had matching scores, compared to our hospital's evaluations. The mean disability scores were 18.7±12.3 at our hospital versus 17.9±14.6 at external centers (p=0.641).

Conclusion: In patients referred due to objection, external and hospital ophthalmologic evaluations were largely consistent, with discrepancies mainly in visual acuity and scoring due to differing regulatory interpretations. Device shortages in secondary centers lead to variability in referrals, warranting economic and functionality analyses to improve device procurement and reduce referral-related costs.

Keywords: Health board, objection, optical coherence tomography, referral, tertiary hospital

ÖZ

Amaç: Türkiye'de, uzman hekimlerin iş yükünün önemli bir bölümünü sağlık kurulu muayeneleri oluşturmaktadır. Bu çalışmanın amacı, günlük pratikte sıkça gerçekleştirilen bu muayeneyi göz hastalıkları uzmanlarının bakış açısından detaylı olarak değerlendirmek ve eksiklikleri ile farklılıkları analiz etmektir. Ayrıca, itiraz ve sevk nedenleriyle üçüncü basamak hastaneye yönlendirilen sağlık kurulu belgelerindeki dış merkezlerde kaydedilen oftalmolojik muayene bulguları ve engellilik puanlarını, kendi hastanemizde kaydedilen verilerle karşılaştırmaktır.

Gereç ve Yöntemler: Aralık 2022-Ocak 2025 yılları arasında sağlık kurulumuza başvuran hastaların dosyaları geriye dönük olarak taranarak engellilik oranı için başvuranların dosyaları incelendi. İtiraz nedenli başvurular itiraz grubuna, sevk nedenli başvurular sevk grubuna eklendi. Tüm hastaların hastanemizde yapılan göz muayene bulguları ile dış merkez göz muayene bulguları kaydedildi. Engel puanı verilenlerin oranları, tanıları, itiraz ve sevk gerekçeleri değerlendirilerek karşılaştırıldı.

Address for Correspondence: Mehmet Egemen Karataş, University of Health Sciences Türkiye, Şişli Hamidiye Etfal Training and Research Hospital, Clinic of Ophthalmology, İstanbul, Türkiye

E-mail: egemenkaratas@gmail.com **ORCID ID:** orcid.org/0000-0001-7346-164X

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ÖZ

Bulgular: Hastanemiz sağlık kuruluna, göz muayenesi gerekli olarak yapılan itiraz ve sevk nedenli başvurular belirlendi ve çalışmaya alındı. İtiraz grubundaki 58 hastanın 34'ü (%58,6) erkek, 24'ü (%41,4) kadındı, ortalama yaş 58,3±17,6 yıl idi. Sevk grubunda 12 hastanın 6'sı (%50) erkek, 6'sı (%50) kadındı, ortalama yaş 51,4±9,1 yıl idi. İtiraz grubunda dış merkez göz hastalıkları engellilik puanı hastanemizden yüksek olanlar 9 (%15,5) hasta, engel puanı hastanemizden düşük olanlar 12 (%20,6) hasta, 37 (%63,9) hastanın ise engel puanı aynıydı. İtiraz grubunun hastanemiz göz hastalıklarından aldıkları engellilik puan ortalaması 18,7±12,3 iken, dış merkezde 17,9±14,6 idi her iki grup arasında istatistiksel anlamlılık saptanmadı (p=0.641).

Sonuç: Üçüncü basamak hastanelere itiraz ile yönlendirilen hastaların dış merkez göz muayene bulguları ile hastanemiz sağlık kurulunda değerlendirilen hastaların göz muayene bulgularının çoğu benzer saptanmıştır. Saptanan en sık farklılık görme keskinliklerinde ve yönetmeliğin farklı yorumlanmasına bağlı olarak puan değerlendirilmesinde olmuştur. İkinci basamak sağlık kuruluşlarında mevcut olmayan cihazlar nedeni ile hastaların üst merkezlere sevki gerekmektedir, bu hastaneler arası çeşitlilik göstermektedir. Bu konuda ekonomi-işlevsellik çalışmaları yapılarak cihaz tedariği ile sevk maliyetinin önüne geçilmeye çalışılmalıdır.

Anahtar Kelimeler: Üçüncü basamak hastane, itiraz, optik kohorens tomografi, sağlık kurulu, sevk

Introduction

In our country, disability evaluations and ratings by the health board are conducted according to two regulations issued by the Ministry of Family and Social Services: the "Regulation on Disability Assessment for Adults" and the "Regulation on Special Needs Assessment for Children" (1). These regulations implement a standardized system for determining the overall degree of disability based on the disability percentages specified by relevant specialties.

While the 2002 "Türkiye Disability Survey" broadly defined visual impairment, more recent data; the Turkish Statistical Institute reports that, between 2019 and 2022, approximately 1.4 percent of the population in Türkiye, which corresponds to around 1,039,000 individuals, live with some degree of visual impairment (2,3). As ophthalmologists, it is our responsibility to define and evaluate the degree of visual impairment in patients in accordance with the existing regulations and guidelines.

In health board services, patients have the right to object to decisions. If patients believe the decisions are inappropriate, they can exercise this right and are referred to another hospital. Evaluations at arbitration hospitals are conducted by repeating examinations by health board physicians and reassessing the scores conducted by the health board physicians. This situation leads to a loss of time and labor due to the repetition of all healthcare service steps, resulting in a significant financial burden for patients, their relatives, and healthcare institutions. Consistency between the initial institution providing the service and the data from the arbitration hospital enhances the reliability of disability percentages determined by the health board and prevents unnecessary objections by patients and relatives. In this study, we aimed to evaluate the consistency of objection applications in ophthalmology, by comparing data from our hospital and external centers. Consequently, reducing unnecessary or unfounded objection applications would contribute to delivering higher-quality healthcare services.

In our country, many secondary hospitals provide health board services. In most cases, these services determine the patients' disability statuses, within those institutions. However, in some cases, patients are referred to tertiary hospitals (upper-level centers) for further tests or subspecialty consultations. One of the major challenges in healthcare accessibility is the burden of referrals, with health board referrals being a significant component of this issue. In this study, identifying the reasons for referral requirements in ophthalmology is aimed at helping address these deficiencies in the long-term. Consequently, this would ensure optimal cost-effectiveness for both patients and their relatives (e.g., travel costs, loss of workforce), and reduce the burden on patients and the workload on tertiary hospitals.

Materials and Methods

This retrospective cross-sectional study, conducted with patients who applied to the Health Board of University of Health Sciences Türkiye, Şişli Hamidiye Etfal Training and Research Hospital between December 2022 and January 2025, was carried out in accordance with the Declaration of Helsinki and approved by the Ethics Committee of University of Health Sciences Türkiye, Şişli Hamidiye Etfal Training and Research Hospital (approval number: 4734, dated: 11.02.2025).

The medical records of patients aged 18-92 years who applied to our Health Board of University of Health Sciences Türkiye, Şişli Hamidiye Etfal Training and Research Hospital between December 2022 and January 2025 were retrospectively reviewed. Files of those who applied for an objection regarding their ophthalmological disability scores, and those referred from other centers were examined.

Patients who applied for an objection were included in the "objection group," while those referred were included in the "referral group". All patients who visited our hospital underwent comprehensive ophthalmological examinations, and their diagnoses, disability percentages according to the regulations, and examination findings were recorded. The ophthalmological examination findings conducted in our hospital, were compared with those from external centers by evaluating the disability scores assigned, diagnoses, and the reasons for objections and referrals.

Statistical Analysis

The data obtained from the study were analyzed using the SPSS 27.0 statistical software package (IBM Corp., Armonk, N.Y., USA). Descriptive statistical evaluations were conducted to assess the categorization and relationships of variables. The distribution of variables was evaluated with the Shapiro-Wilk test. In the objection group, the difference in mean disability scores between our hospital and external centers was analyzed using the Wilcoxon signed-rank test. A p-value of less than 0.05 ($p<0.05$) was considered statistically significant.

Results

A total of 312 patient files were reviewed in the objection group, of which 58 cases involved objections regarding ophthalmological disability scores. Among these, 34 patients (58.6%) were male, and 24 (41.4%) were female, with a mean age of 58.3±17.6 years. In the referral group, 12 patients were evaluated, with 6 (50%) male and 6 (50%) female patients, and a mean age of 51.4±9.1 years.

In the objection group, 9 patients (15.5%) had a higher disability score than assigned by external centers compared to our hospital, 12 patients (20.6%) had a lower score than assigned by external centers compared to our hospital, and 37 patients (63.9%) had identical scores. It was observed that all patients who received a higher disability percentage from external centers had a lower best-corrected visual acuity (BCVA) compared to evaluations at our hospital. Patients who were assigned a lower disability score by external centers most commonly had diagnoses of cataracts, glaucoma, hereditary retinal diseases, and optic nerve disorders. In the objection group, 21 patients (36.2%) demonstrated differences in BCVA between the external center and our hospital, while 4 patients (6.8%) showed differences in biomicroscopic findings. For 2 patients (3.4%), BCVA could not be evaluated in either centers.

The mean ophthalmological disability score assigned by our hospital in the objection group was 18.7±12.3, compared to 17.9±14.6 in external centers, with no statistically significant difference between the two groups (p=0.641). The most frequent diagnoses in the observation group were diabetic retinopathy (DR), cataracts, amblyopia, glaucoma, corneal diseases (e.g., corneal opacities and keratoconus), optic nerve diseases, age-related macular degeneration, hereditary retinal diseases, and diplopia-ptosis. The distribution of patient numbers by diagnosis in the observation group is presented in Table 1.

The BCVA of all patients in the referral group was assessable at both centers. The mean ophthalmological disability score assigned by our hospital for the referral group was 15.8±11.7. The most frequent diagnoses in the referral group were DR, amblyopia, optic nerve disorders, and keratoconus.

When the referral group was evaluated based on their diagnoses, it was determined that patients with DR were referred because the absence of an optical coherence tomography (OCT) device prevented the objective documentation diabetic macular edema and/or ongoing intravitreal injection treatments. Patients diagnosed with amblyopia and optic nerve disorders were referred when their examination findings and BCVA were inconsistent due to the lack of a Visual Evoked Potential test. Additionally, patients with suspected keratoconus were referred for a definitive diagnosis owing to the unavailability of a corneal topography device.

Discussion

The completion of examinations in relevant departments, proper documentation, and the security of medical records for patients applying to the health board are of utmost importance. Despite the standardization of disability rates through relevant regulations and calculated scores in accordance with these regulations, discrepancies are observed in the final assessments. This study aims to

Table 1. Distribution of patients according to the diagnosis of the objection group

Diseases	Number of people and rate
Diabetic retinopathy	18 (31%)
Cataract	11 (18.9%)
Amblyopia	9 (15.5%)
Glaucoma	5 (8.6%)
Corneal diseases	5 (8.6%)
Optic nerve diseases	4 (6.8%)
Age-related macular degeneration	3 (5.4%)
Hereditary retinal diseases	2 (3.4%)
Diplopia-pitosis	1 (1.8%)

identify inter-institutional and inter-physician differences by examining objections and to highlight potential and remediable deficiencies in our healthcare system by determining the frequency and reasons for referrals.

In our country, there are two separate scoring systems for disability and incapacity assessments based on health board applications. In the field of ophthalmology, total vision loss, visual acuity scoring, and diagnoses/symptoms such as nystagmus, diplopia, ptosis, and photophobia are evaluated and scored differently (4). In the context of Health Board disability evaluations, the assessment of ophthalmic impairments extends beyond mere measurements of visual acuity. Comprehensive evaluation encompasses visual field abnormalities and various structural and functional deficits affecting the visual system. Notably, binocular visual field losses-such as homonymous hemianopia, quadrantanopia, or central/paracentral scotomas-are recognized as significantly impairing an individual's environmental awareness and ability to perform daily activities. These conditions are therefore quantified through a standardized scoring system outlined in the Visual Field Assessment Table included in the guideline (5).

In addition, various ocular conditions categorized under "Other Structural and Functional Deficits" are also taken into consideration, even in the absence of marked visual acuity or field loss (5). These include functional disorders such as lagophthalmos, which carries a risk of corneal exposure; diplopia, which disrupts binocular fusion; severe ptosis, especially when the visual axis is obscured; and lacrimal system obstructions that result in recurrent infections or functional limitation (5). Each of these conditions may independently contribute to the overall disability rating based on the degree of visual function compromise they produce.

This integrative approach, which takes into account both anatomical damage and functional capacity, facilitates a more accurate, fair, and clinically meaningful representation of the individual's visual disability, aligning medical assessment with real-world functional impact. The examination process should begin with verifying the patient's identity information, taking the application request into consideration. These controls are crucial to prevent errors arising from such differences.

A previous thesis study found that the most common reason for cases being referred to the General Assembly of the Forensic Medicine Institute, for incapacity determination or objection, was inconsistencies between reports, particularly the confusion between disability and incapacity ratings (6). Conversely, it is possible that applications for disability assessment may mistakenly be evaluated under the incapacity regulation. In our study, we consider this to be one of the possible reasons for discrepancies in scoring and assessment.

In the objection group, the most significant difference in scores, because cataract diagnoses at external centers were not assigned any points or percentages, between our hospital and external centers was that the scoring could change with surgical intervention. However, according to the "Regulation on Disability Assessment for Adults", even if patients refuse treatment, conditions such as diplopia, persistent epiphora, functionally impairing eyelid disorders, and vision-threatening ocular diseases that are surgically treatable are to be addressed through "time-limited reports valid for two years" (5). At our hospital, we follow this regulation and assign scores for cataract patients for varying durations up to 2 years, ensuring that the patient does not lose out on his or her score during the time period recommended by the physician. Once the duration expires, and if the treatment is not completed, the score will be removed, preventing any loss for the insurance system and closing the door to potential abuse. Another difference is seen in diseases such as glaucoma, optic nerve disorders, and hereditary retinal diseases (especially retinitis pigmentosa), where central vision is initially preserved but peripheral vision loss occurs. The failure to assess the visual field, or the lack of a visual field test in the hospital, has resulted in lower scores at external centers compared to our hospital. This discrepancy leads to objections, which in turn increase the workload at other healthcare institutions. We believe that special meetings and training to establish a consensus on medical board examinations and scoring could prevent such issues. However, overall, there was no statistically significant difference in the disability scoring for eye diseases between our hospital and external centers, demonstrating consistency among institutions and physicians.

In ophthalmology specialty training, there is no mandatory education process related to medical board evaluations (7). This results in the lack of use of the "Regulation on Disability Assessment for Adults" during residency, causing a lack of knowledge regarding the examination process, scoring, and decision-making system in medical board evaluations. As a result, we believe that the regulation is not sufficiently understood by specialist physicians, and this leads to differences in the interpretation of examination findings and scoring. To address this gap, the inclusion should be in the planning of specialty training or professional associations, with mandatory rotations and focused training on these topics. This approach would prevent discrepancies in interpretation between institutions and physicians.

DR, a common and specific microvascular complication of diabetes mellitus, is one of the leading causes of vision loss worldwide (8). In our study, DR was the most frequent diagnosis in the objection group. Given the high prevalence of DR in our population, it is inevitable that vision impairment caused by DR is one of the most common reasons for medical board referrals. In modern ophthalmology, certain devices have become indispensable for diagnosis and treatment. OCT for DR monitoring and corneal topography for keratoconus diagnosis are prime examples of this (9,10). In our study, the most common reason for referral was the absence of an OCT device at the external centers to objectively and quantitatively detect macular edema due to DR. By ensuring that necessary devices are provided to relevant institutions in a cost-effective manner, unnecessary referrals and the associated costs in terms of time, labor, and transportation can be minimized. These referrals result in losses of time and labor for both patients and healthcare providers, as well as repeat tests due to quality inadequacies, leading to financial losses for the insurance system. With proper planning, cost-effective device procurement for relevant centers can address all these issues.

Study Limitations

The limitations of our study include its retrospective nature and the small number of patient files evaluated. However, given the generally low number of disability objections and referral requests for eye diseases, we believe this sample size is sufficient for this study. Conducting this study in a tertiary care hospital enabled access to a relatively large patient population within this field.

As ophthalmologists actively involved in medical board services at secondary and tertiary care hospitals, we find that a significant portion of our workload consists of medical board examinations. These examinations require a thorough understanding and application of the relevant regulations. Standardization of this healthcare service is crucial, not only for us as physicians but also for our patients. This study highlights both the scope of eye diseases causing permanent disability (resulting in disability scores) in our society and the consistency of evaluations by institutions, physicians providing these services. We believe that future studies involving larger patient populations will increase awareness of preventable sequelae and help in improving public health.

Conclusion

In this study, we analyzed patients who required additional evaluations resulting from objections and referrals in the context of medical boards. It was determined that the disability rates for eye diseases assessed in a tertiary care hospital were comparable to those reported by external centers. This result, reflects the consistency of medical board services among hospitals. However, there were individual variations in the outcomes, and we believe that the interpretation of these results, along with our suggestions for improvements, will help enhance the quality of healthcare services and provide guidance for future research.

Ethics

Ethics Committee Approval: Ethical approval was obtained from the Ethics Committee of University of Health Sciences Türkiye, Şişli Hamidiye Etfal Training and Research Hospital (approval number: 4734, dated: 11.02.2025).

Informed Consent: Retrospective study.

Footnotes

Authorship Contributions

Surgical and Medical Practices: M.E.K., G.K., Concept: G.K., Design: M.E.K., G.K., Data Collection or Processing: M.E.K., Analysis or Interpretation: M.E.K., Literature Search: G.K., Writing: M.E.K., G.K.

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