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Consultation Overload in Otorhinolaryngology: Insights from a Multicenter Retrospective Study

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ABSTRACT

Objective: This study aims to examine the features of otorhinolaryngology (ENT) consultations requested in tertiary healthcare centers. **Materials and Methods:** A retrospective chart review was carried out on patients who received ENT consultations between January 2022 and June 2023. Collected data included patient demographics, referring department, indications for consultation, final diagnoses, and treatment recommendations. The emergency and priority of the consultations were also assessed. **Results:** A total of 624 patients were included (350 male, 274 female; mean age: 49.7 years). The departments that most frequently requested ENT consultations were pulmonary medicine (29.96%), neurology (13.78%), and radiation oncology (8.49%). The leading reasons for consultation included snoring, suspected obstructive sleep apnea, and polysomnography (21.79%), followed by dizziness (7.21%) and hearing loss (6.41%). Management options were classified into four categories: medical treatment, minor surgical treatment, major surgical treatment, and follow-up. Moreover, 86.3% of consultations were non-urgent non-emergent conditions and suitable for elective outpatient follow-up. **Conclusion:** Most ENT consultation requests involved conditions manageable without immediate intervention. The ability to accurately determine the necessity of a multidisciplinary approach should be cultivated through both residency and post-residency training. Thus, both the workload can be reduced and the quality of patient care can be improved.

Keywords: Consultation, Otorhinolaryngologic Diseases, Interdisciplinary Communication.

Otorinolarinolojide Konsültasyon Yükü: Çok Merkezli Retrospektif Çalışma Bulguları

ÖZ

Amaç: Bu çalışma, üçüncü basamak sağlık kuruluşlarında istenen kulak burun boğaz (KBB) konsültasyonlarının özelliklerini incelemeyi amaçlamaktadır. **Gereç ve Yöntem:** Ocak 2022–Haziran 2023 tarihleri arasında KBB konsültasyonu yapılan hastaların dosyaları retrospektif olarak incelendi. Hastaların demografik verileri, başvuran klinikler, konsültasyon nedenleri, tanılar, tedavi önerileri incelendi ve bu bulgularla konsültasyonların aciliyet ve öncelik durumu değerlendirildi. **Bulgular:** Çalışmaya toplam 624 hasta dâhil edildi (350 erkek, 274 kadın, ortalama yaş: 49.7 yıl). KBB konsültasyonlarının en sık istendiği bölümler göğüs hastalıkları (%29.96), nöroloji (%13.78) ve radyasyon onkolojisi (%8.49) olarak belirlendi. Konsültasyonların başlıca nedenleri horlama, obstrüktif uyku apnesi şüphesi ve polisomnografi öncesi muayene isteği (%21.79), baş dönmesi (%7.21) ve işitme kaybı (%6.41) idi. Hastalık yönetimi medikal tedavi, minör cerrahi müdahale, majör cerrahi müdahale ve takip olmak üzere dört ana başlıkta sınıflandırıldı. Çalışmamızın sonuçlarına göre vakaların %86.3'ü acil veya öncelikli olmayan, elektif poliklinik koşullarında yönetilebilecek nitelikteydi. **Sonuç:** KBB konsültasyonlarının çoğu ivedi müdahale gerektirmeden yönetilebilecek durumlarla ilgiliydi. Multidisipliner yaklaşımın gerekliliğine karar verme becerisi, hem uzmanlık eğitimi sürecinde hem de uzmanlık sonrası eğitimlerde geliştirilmelidir. Böylece hem iş yükü azaltılabilir, hem de hasta bakım kalitesi artırılabilir.

Anahtar Kelimeler: Konsültasyon, Kulak-burun-boğaz Hastalıkları, Disiplinlerarası İletişim.

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INTRODUCTION

Consultation is a formal request initiated by a physician seeking expert evaluation from another specialty regarding a patient's diagnosis, treatment, or follow-up (Atalay & Topal, 2022; Gulec Balbay et al., 2013). It facilitates interdisciplinary collaboration, allowing specialists to combine their expertise for more accurate assessments and optimal care delivery (Dönmez et al. 2017; Topuz, 2020). However, an excessive number of consultation requests may contribute to physician burnout, disrupt scheduled workflows, and unnecessarily increase healthcare costs, while also reducing the time available per patient—potentially compromising patient safety (Sher & Nicholas, 2020; West et al., 2016).

Although consultations have been extensively studied in fields such as thoracic surgery, internal medicine, and dermatology, there is a relative paucity of data on consultation practices in otorhinolaryngology. This multicenter study aims to address this gap by analyzing the characteristics of ENT consultations within two tertiary hospitals, including the demographics, referral sources, reasons for consultation, diagnostic outcomes, and urgency classifications. By identifying patterns in consultation practices, we seek to provide insight into current referral behaviors and highlight areas for potential optimization in ENT consultation processes.

MATERIALS AND METHODS

This study has been performed according to the Declaration of Helsinki. Local ethics committee approval was obtained (approval number: 2024/113) from Balikesir University. Patients' demographic and clinical data were collected from the medical archive of the tertiary care institutions where the authors worked through the time of study conducted.

All patients provided informed consent for the use of their medical data in scientific research at the time of examination.

This multicenter study included patients of all ages who received ENT consultations between January 2022 and June 2023 at Balikesir University Hospital and Balikesir Atatürk City Hospital, two major tertiary care centers located in the city center of Balikesir, Turkiye, provided that their medical records were complete. Consultations not completed by ENT specialists and repeated consultations for the same condition in the same patient were excluded from the analysis.

Collected data included patient age and gender, requesting departments, consultation reasons, and ENT diagnoses. Post-consultation recommendations were classified as:

- No treatment or further diagnostic follow-up
- Medical treatment (e.g., pharyngitis or sudden hearing loss)

- Minor surgery (e.g., mucosal biopsy)
- Major surgery (e.g., performing tracheotomy)
- Conditions were classified into two main categories based on their urgency and management requirements:
- Urgent and Emergent Conditions: This category includes cases requiring immediate or prioritized medical intervention. Examples encompass epistaxis; foreign bodies in the nasal cavity, ear, or larynx; indications for tracheotomy; tracheotomy cannula related conditions; nasal fractures; biopsy requests or evaluations for suspected malignancy; hospital admissions or medical treatment recommendations for dizziness; sudden sensorineural hearing loss; deep neck infections; facial paralysis; and other conditions necessitating timely diagnosis and treatment.
- Non-Urgent / Elective Conditions: This category comprises cases that do not require immediate intervention and can be safely managed through routine outpatient follow-up. Examples include routine ENT examinations, sore throat, acute nasopharyngitis, chronic pharyngitis, laryngopharyngeal reflux, allergic rhinitis, preoperative vocal cord assessments, and other similar non-urgent conditions.

Statistical analysis

The findings in the study are presented as numbers and percentages. Since there was no statistical analysis method involving comparison between groups in the study, power analysis was not performed.

Ethical approval

This study conducted in accordance with the Helsinki Declaration Principles. The study protocol was approved by Balikesir University Health Sciences Non-Interventional Studies Ethics Committee (Date: 09.07.2024 and Decision No: 2024.113).

RESULTS

The study included 624 patients who were requested for ENT consultation and met the inclusion criteria. 350 of the patients were male and 274 were female. The mean age of the patients was 49.7 years.

Pulmonary medicine (29.96%), neurology (13.78%), and radiation oncology (8.49%) were the top departments requesting ENT consultations. A detailed assessment of the requesting departments is presented in Table 1.

Most frequent consultation reasons included suspected sleep apnea, snoring, PSG related examination requests (21.79%), dizziness (7.21%), and hearing loss (6.41%). The reasons for the consultations requested from the ENT department are detailed in Table 2.

Table 1. The distribution of departments requesting ENT consultation.

Department	n	%
Pulmonology	187	29.96
Neurology	86	13.78
Radiation Oncology	53	8.49
Emergency Medicine	52	8.3
General Surgery	35	5.6
Neurosurgery	26	4.1
Pediatrics	21	3.36
Cardiovascular Surgery	13	2.08
Cardiology	12	1.92
Intensive Care Unit (ICU)	11	1.76
Dermatology	10	1.60
Obstetrics and Gynecology	9	1.44
Internal Medicine	9	1.44
Infectious Diseases	9	1.44
Orthopedics	9	1.44
Thoracic Surgery	8	1.28
Urology	7	1.12
Pediatric Surgery	7	1.12
Surgical Oncology	7	1.12
Others	61	9.77

n: Count, %: Percentage.

Table 2. Reason for ENT consultation.

Reason for consultation	n	%
Snoring, suspected sleep apnea and polysomnography related evaluation	136	21.79
Dizziness	45	7.21
Hearing loss	40	6.41
Epistaxis	30	4.80
Hoarseness	29	4.64
Vocal cord examination	29	4.64
Neck mass	21	3.36
Sore throat	21	3.36
Nasal discharge	25	4.00
Laryngeal examination	25	4.00
Cough	26	4.16
Postnasal drip	20	3.20
Otalgia	16	2.56
Nasal obstruction	16	2.56
Trauma evaluation after traffic accident	15	2.40
Tinnitus	14	2.24
Hemoptysis	13	2.08
Facial asymmetry	12	1.92
Oral ulcers (lip, tongue or mouth)	14	2.24
Preoperative assessment	10	1.60
Nasal foreign body	10	1.60
Nasal trauma	10	1.60
Others	47	7.53

n: Count, %: Percentage.

Reviewing the consultation referrals to the ENT department showed that the most frequent diagnosis was routine medical examination without abnormal findings accounting for 13.14% of cases, followed by “ear and hearing examination” (10.89%) and “sleep disorders – obstructive sleep apnea (OSA)” (9.13%). The diagnoses of the patients who came to ENT consultation are presented in detail in Table 3. Following consultation, 72.27% of patients were found

to have elective conditions and were therefore advised to undergo follow-up or additional diagnostic testing rather than immediate treatment. The details are presented in Table 4.

Regarding urgency, 86.3% were categorized as non-urgent/elective cases that could be concluded with outpatient clinic control. The details are presented in Table 5.

Table 3. Final Diagnoses assigned by the ENT specialist after consultation.

Final Diagnoses Assigned by the ENT Specialist After Consultation	n	%
General medical examination	82	13.14
Ear and hearing examination	68	10.89
Sleep disorders obstructive sleep apnea syndrome (OSAS)	57	9.13
Seasonal allergic rhinitis	38	6.00
Vertigo	25	4.00
Malignant neoplasm of larynx	22	3.50
Epistaxis	21	3.36
Acute sinusitis	21	3.36
Impacted cerumen	20	3.20
Nasal septum deviation	15	2.40
Acute pharyngitis	15	2.40
Hearing loss	15	2.40
Localized swelling mass or lump in neck	13	2.08
Fracture of nasal bones	11	1.76
Upper respiratory tract infection	11	1.76
Laryngopharyngeal reflux	11	1.76
Facial paralysis Bells palsy	10	1.60
Acute otitis media	10	1.60
Postoperative surgical follow-up	10	1.60
Dermatitis	10	1.60
Taste and smell disorders	10	1.60
Others	129	20.67

n: Count, %: Percentage

Table 4. Distribution of interventions performed following the consultation.

No treatment or recommendation for follow-up after diagnostic testing	n	%
Medical treatment	451	72.27
Minor surgery	138	22.11
Major surgery	31	4.96
No treatment or recommendation for follow-up after diagnostic testing	4	0.64

n: Count, %: Percentage

Table 5. Urgency assessment of ENT consultations.

Urgency and Priority Status	n	%
Urgent or requiring prioritization	84	13.46
Non-urgent and manageable through elective outpatient follow-up	540	86.53

n: Count, %: Percentage

DISCUSSION

Consultations play a critical role in multidisciplinary healthcare, particularly within highly specialized medical systems. As the scope and complexity of modern medicine continue to expand driven by increasing specialization the need for multidisciplinary approaches has become essential to ensure effective treatment planning. This growing complexity, coupled with rising patient numbers, has

led to a notable increase in consultation frequency across clinical settings (Atalay & Topal, 2022; Smith et al., 2018; Virtanen et al., 2008). One contributing factor to this trend may be medicolegal concerns, as physicians may seek consultations more frequently to reduce the risk of potential malpractice lawsuits (Kayabaşı & Gül, 2019).

Although studies on consultations exist, a review of both international and Turkish literature reveals that

research specifically examining ENT consultations in Türkiye remains limited. Among the available studies, Türe et al. (2023) focused solely on consultations from palliative care services, while Atalay & Topal (2022) restricted their analysis to emergency department referrals. Kayabaşı & Gül (2019) evaluated consultations from the emergency department, intensive care unit, and inpatient wards; however, their study categorized inpatient consultations broadly as "internal" or "surgical" departments without detailed branch-specific analysis. Similarly, Topuz (2020) reported the branches from which consultations originated, focusing on emergency department referrals, but did not distinguish between inpatient and outpatient cases. Furthermore, all four studies were conducted in single-center settings.

To the best of our knowledge, this study is the only multi-center investigation in our country that examines ENT consultations across inpatient and outpatient clinics, emergency services, and intensive care units. Our findings indicate that the departments most frequently requesting ENT consultations are pulmonary medicine, neurology, and radiation oncology. However, previous single-center studies conducted by Kayabaşı & Gül (2019) and Topuz (2020) identified the emergency department as the primary source of ENT consultation requests. Additionally, our results revealed that radiation oncology was among the top three departments requesting ENT consultations, a finding not reported in earlier studies. This may be attributed to the inclusion of a regional center for head and neck cancer treatment within one of the study hospitals, which also houses the only radiation oncology unit in the province, potentially accounting for the increased consultation demand from this specialty.

The most common diagnoses resulting from ENT consultations were general medical examination without ENT-related abnormalities, ear and hearing examinations, and sleep disorders—particularly obstructive sleep apnea (OSA). These findings suggest that the majority of consultation requests were associated with non-urgent, elective conditions manageable in outpatient settings.

Recommendations provided by ENT physicians following consultations showed that 72.27% of patients did not require immediate treatment and were instead advised to undergo follow-up or further testing due to elective conditions. Furthermore, 86.53% of consultations were classified as non-urgent non-emergent, indicating that most cases could be appropriately managed within the framework of scheduled outpatient care.

Consultation remains a vital component of comprehensive patient care. However, in high-volume specialties such as otorhinolaryngology, which provide both surgical and outpatient services across all age groups, the increasing number of consultation requests can exacerbate patient density.

This demand may lead to delays in scheduled care, disrupt service flow, and hinder timely intervention in genuinely urgent cases.

Such delays and disruptions can negatively impact the efficiency of the healthcare system, reduce patient satisfaction, and strain resources. Moreover, the workload associated with unnecessary consultations can hinder the effective utilization of physicians' time and efforts, further complicating the delivery of optimal care (Thompson & Yarnold, 1995).

To promote more efficient use of clinical resources and reduce unnecessary workload, time loss, and healthcare costs, it is important to support a thoughtful approach to consultation requests. This includes performing basic examinations and initial assessments when appropriate, and strengthening collaboration between specialties, supported by ongoing training and clear communication. Integrating multidisciplinary practice modules into residency training—particularly tailored to the specialties with which departments most frequently interact—may further enhance clinical decision-making and improve consultation efficiency.

CONCLUSION

This study provides a comprehensive overview of ENT consultation practices across diverse clinical settings, highlighting pulmonary medicine, neurology, and radiation oncology as the most frequent sources of referral.

Notably, most patients referred for ENT consultation did not require immediate intervention, and the majority of cases involved non-urgent conditions that could have been effectively managed through scheduled outpatient care.

These results underscore the need to reassess consultation practices within multidisciplinary systems. Strengthening the clinical knowledge of ENT-related conditions among frequently referring specialties, improving interdepartmental communication, and encouraging the appropriate use of referrals may help optimize healthcare resources, reduce unnecessary workload, and enhance overall patient care.

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Conflict of Interest

The author declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Author Contributions

Plan, design: TT; **Material, methods and data collection:** TT, KGT; **Data analysis and comments:** TT, KGT; **Writing and corrections:** TT, KGT.

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Ethical Approval

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