

Characteristic Profile of the Patients Consulted from Emergency Department to Otolaryngology Clinic

Acil Servisten Kulak Burun Boğaz Kliniğine Konsülte Edilen Hastaların Karakteristik Profili

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ABSTRACT Objective: Currently, consultation requests are frequently made from emergency departments to other clinics. The aim of this study is to perform a detailed analysis of the consultation requests from the emergency department to the otolaryngology clinic and to evaluate the case results and the need for consultation. **Material and Methods:** The files of 743 cases consulted from the emergency room to the otolaryngology clinic between January 2016 and December 2019 were reviewed retrospectively. Reasons for requesting consultation, symptoms and diagnoses of the cases, and procedures performed as a result of the consultation were analyzed in detail. **Results:** The ages of the patients ranged between 1 and 93 years (mean: 49.7 ± 9.38 years), and there were 354 (47.6%) female and 389 (52.4%) male patients. The most common reason for consultation request was epistaxis (24.5%). As a result of the consultation, 1.6% of all cases underwent emergency surgical operation and 4.9% underwent various surgical procedures under local anesthesia, and 4.2% were hospitalized for medical treatment. Outpatient clinic follow-up was recommended for 381 cases (51.3%), while elective operation was recommended for 125 cases (16.8%). As a result of 119 consultations (16.1%), no otolaryngologic pathology was found and these consultations were considered unnecessary. **Conclusion:** By having a sufficient number of specialist physicians in emergency departments, evaluating the problems associated with consultations with regular meetings between clinics, and organizing training programs in institutions that train specialist doctors, unnecessary requests for consultations can be reduced.

Keywords: Emergency room; consultation; emergency surgery; disease management

ÖZET Amaç: Günümüzde acil servislerden oldukça sık bir şekilde diğer kliniklere konsültasyon istemi yapılmaktadır. Bu çalışmanın amacı acil servisten kulak burun boğaz kliniğine istenen konsültasyonların detaylı analizini yaparak vaka sonuçlarını ve konsültasyon gerekliliğini değerlendirmektir. **Gereç ve Yöntemler:** Ocak 2016 ve Aralık 2019 tarihleri arasında acil servisten kulak burun boğaz kliniğine konsültasyon istenmiş olan 743 vakanın dosyaları retrospektif olarak incelendi. Konsültasyon istenme nedenleri, vakaların semptomları, tanıları ve konsültasyon sonucunda yapılan işlemler ayrıntılı analiz edildi. **Bulgular:** Hastaların yaşları 1 ile 93 yıl arasında (ortalama 49,7±9,38) değişmekte idi ve 354 (%47,6) kadın ve 389 (%52,4) erkek vardı. En sık konsültasyon istenme nedeni epistaksis (%24,5) olarak saptandı. Konsültasyon sonucunda tüm vakaların %1,6'sına acil cerrahi operasyon ve %4,9'una ise lokal anestezi ile çeşitli cerrahi işlemler yapıldığı, %4,2'sinin ise medikal tedavi için hastaneye yatırıldığı izlendi. 381 vakaya (%51,3) poliklinik kontrolü önerilirken 125 vakaya (%16,8) ise elektif operasyon önerildiği belirlendi. 119 konsültasyon (%16,1) sonucunda herhangi bir kulak burun boğaz patolojisine rastlanmadı ve bu konsültasyonlar gereksiz olarak değerlendirildi. **Sonuç:** Acil servislerde yeterli sayıda uzman hekim bulundurulması, konsültasyonlarla ilişkili sorunların klinikler arası düzenli toplantılarla değerlendirilmesi ve uzman hekim yetiştiren kurumlarda eğitim programlarının düzenlenmesi ile gereksiz konsültasyon istemleri azaltılabilecektir.

Anahtar Kelimeler: Acil servis; konsültasyon; acil cerrahi; hastalık yönetimi

Emergency rooms, which are undoubtedly one of the most important units of hospitals, are departments that serve uninterruptedly 24 hours a day and

treat all kinds of emergency cases. Treatment methods are shaped according to the results of the initial evaluation of the patients after their presentation to

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the emergency room. The initial intervention and treatment as well as medical care result in resolution of the acute problem of the patient or consultation of the patient to the relevant department, hospitalization of the patient, or referral of the patient to a more advanced health care institution.¹ Consultation is the final decision made in accordance with the recommendations made based on the experience and knowledge of physicians in the required branches related to the treatment and follow-up of the cases.² The emergency physician who initially takes care of the patient must first evaluate the case in detail, perform the necessary examinations after detailed anamnesis and general physical examination, and then should consult the patient to the relevant department to access the necessary knowledge in the relevant field of specialization and manage the treatment. The consulted physician should transfer the necessary medical knowledge and experience to the emergency physician first verbally and then through the hospital automation system in writing.³ Since the responsibility for treatment and follow-up is transferred to the consulted physician after this stage, the recommendations given by the relevant physician should be followed regardfully in ethical terms.⁴

The recently increased number of patients has become the most important problem in the emergency rooms.⁵ Unnecessary requests for non-urgent cases, the problem of finding beds in patients in need of hospitalization, the increase in serious diseases as a result of an increasing population of elderly patients, lack of staff and physical space, delays in radiological and laboratory examinations, and the length of consultation times are considered to be among the reasons for busy emergency rooms.⁶ It has been reported that increasing consultation requests from emergency rooms also contribute to this delay.⁵

Since there is a high number of cases within the area of otolaryngology and due to the frequent performance of surgical procedures, consultation is requested very frequently by the emergency rooms. When papers in the literature were reviewed, there was no publication investigating and examining the consultation traffic between the emergency room and the otolaryngology clinic. In this study, we present the reasons for consultation requests made by the

emergency room to the otolaryngology clinic, characteristic profiles of the patients, pre-consultation findings, and post-consultation medical and surgical treatments. We also made an attempt to reveal the duration of the requested consultations by the relevant physician and the necessity of these consultations.

MATERIAL AND METHODS

In this study, files of 743 patients who were consulted from the emergency room to the otolaryngology clinic between January 2016 and December 2019 at our hospital were reviewed retrospectively. Demographic profiles of the patients, reasons for presentation to the emergency room, initial diagnoses, reasons for consultation, procedures performed after consultation, radiological and laboratory results, hospitalization rates, and surgical operations performed were analyzed. Consultations from other wards and polyclinics with beds were excluded from the study. The study commenced following approval from the Akşaray University Local Ethics Committee (IRB: 2020/03-64). All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

STATISTICAL ANALYSIS

Descriptive statistics for continuous variables were expressed as standard deviation, mean, minimum, and maximum values, while categorical variables were expressed in numbers and percentages. Pearson's chi-square test was used to determine the relationship between groups and categorical variables, and Student-t test was used to compare group means

TABLE 1: Characteristics of patients.

Age (mean, years)	49.7±9.38
Gender (female: male)	354 : 389
Consultation area in ER (n, %)	
Trauma	398 (53.6%)
Non-trauma	345 (46.4%)
Hospitalization ratio (n, %)	43 (5.8%)
Referral rate (n, %)	2 (0.3%)

ER: Emergency room.

of continuous variables. SPSS statistical package program was used in the calculations, and the statistical significance level was considered <0.05 . Characteristics of the patients are shown in [Table 1](#).

RESULTS

The data of 743 cases consulted from the emergency room to the otolaryngology clinic were analyzed in detail. Of the total number of patients, 354 were female (47.6%) and 389 were male (52.4%). The age range of the cases was between 1 and 93 years (mean: 49.7 ± 9.38 years). When the relationship between consultation requests and seasonal characteristics was examined, it was found that the consultation requests were made by the emergency room from the otolaryngology clinic most often in the summer (31%), but this difference was not statistically significant ($p > 0.05$).

When the reasons for requesting consultation were investigated, it was found that patients were consulted most often due to epistaxis (24.5%). This was followed by maxillofacial traumas, foreign bodies, head and neck infections, and complications, vertigo, airway obstruction and firearm injuries, respectively. The reasons for the consultation requests coming from the emergency room are shown in detail in [Table 2](#).

When the symptoms of the consulted cases were examined, the most common complaint was epistaxis, followed by headache, sore throat, ear pain, fever, cough, difficulty swallowing, and difficulty breathing ([Table 3](#)). In some patients, there was only one symptom, and in others there were several symptoms. The times required by the otolaryngology clinic

TABLE 2: The reasons for the consultation requested from the emergency department.

Reasons for consultation	Value (n, %)
Epistaxis	182 (24.5%)
Maxillofacial trauma	178 (24%)
Foreign bodies	139 (18.7%)
Infectious causes	133 (17.9%)
Peripheral vertigo	85 (11.4%)
Airway obstruction	3 (0.4%)
Firearm injuries	2 (0.3%)
Other	21 (2.8%)

TABLE 3: Symptoms of patients.

Symptom	Value (n, %)
Epistaxis	201 (27.1%)
Headache	189 (25.4%)
Sore throat	141 (18.9%)
Earache	93 (12.5%)
Fever	87 (11.7%)
Cough	79 (10.6%)
Dysphagia	63 (8.4%)
Dyspnea	13 (1.7%)

TABLE 4: Consultation results.

Result	Value (n, %)
ENT outpatient control	381 (51.3%)
Elective surgery	125 (16.8%)
Consultation to other clinics	119 (16.1%)
Procedures with local anesthesia	37 (4.9%)
Further examinations	36 (4.8%)
Hospitalization for medical treatment	31 (4.2%)
Emergency surgery	12 (1.6%)
Referral to advanced healthcare	2 (0.3%)

to finalize the consultations were found to be 18 minutes within office hours and 41 minutes outside of office hours.

When the results of consultations requested by the emergency room were examined, it was determined that a majority of the patients were advised to be checked at the otolaryngology outpatient clinic (381 cases, 51.3%). Other procedures performed in these patients were operations under elective conditions (125 cases, 16.8%), consultation to other clinics (119 cases, 16.1%), interventions performed under local anesthesia (37 cases, 4.9%), further examinations (36 cases, 4.8%), hospitalization for medical treatment (31 cases, 4.2%), emergency operations (12 cases, 1.6%), and referral to an advanced health care institution (2 cases, 0.3%) ([Table 4](#)).

Among all consultation requests made by the emergency room from the otolaryngology clinic, 6.5% of the cases urgently underwent various surgical procedures. When these emergency surgical interventions were examined, the most common procedure was nasal fracture reduction (19 cases). This was followed by incision suture (18 cases),

foreign body removal (7 cases), peritonsillar abscess drainage (3 cases), and tracheotomy (2 cases), respectively.

DISCUSSION

Emergency departments, which have an important place in the current healthcare system, must have an effective and fast functioning in terms of diagnosis and treatment due to the large number of patients presenting. Consultation procedures are one of the most important parts of this fast and complex structure. This is why it is necessary to be sensitive and selective, especially in terms of loss of time and labor when consulting cases from the emergency room to the other departments. Detailed physical examination and necessary radiological and laboratory examinations are very important evaluations that should be performed before consultation.

The numbers of areas of expertise and interests are increasing in parallel with the information exchange and development that is taking place today. For this reason, it has become inevitable for the relevant specialization areas to work together for a holistic approach to the cases.⁷ Consultation is the name given to seeking scientific or technical assistance from a physician specialized in a different field concerning the patient's condition, making use of their experience, and the follow-up of the patients in accordance with the recommendations of the physicians.⁸ A multidisciplinary approach is taken as a basis in cases with complicated diagnosis and treatment related to multiple areas of specialization. Thus, it became necessary to allocate the time necessary for the consultation process between clinics, which is a part of this pattern, and to conduct joint council meetings for case management.⁹

In the present study, it is observed that otolaryngology consultation is requested more often by the trauma area within the emergency department (53.6%). In the detailed analysis of these patients, no pathologies related to the otolaryngology clinic were found in 47 cases (11.8%), and they were evaluated as unnecessary consultation requests. When 345 consultation requests from non-trauma areas were examined, no otolaryngologic pathology was observed

in 49 cases (14.2%). Thus, when all requested consultations were examined, it was determined that unnecessary consultation requests were made at a rate of 12.9%. Therefore, it is crucial to make the necessary spatial arrangements in the emergency rooms, ensure that the trainings and numbers of specialized healthcare personnel are at optimum levels, to perform triage of patients to allocate them to the required area in the emergency room for reducing unnecessary consultations and avoiding the loss of time and labor force.

When the consultation results were examined in our study, it was determined that 12 cases (1.6%) underwent surgical procedure under general anesthesia and 37 cases (4.9%) underwent small surgical interventions under local anesthesia. In 125 cases (16.8%), surgical intervention was recommended under elective conditions. In addition, 31 cases (4.2%) were hospitalized for medical treatment. Low rates of emergency surgical intervention and low rates of hospitalization for medical treatment suggest that often unnecessary consultation is requested by the emergency room from the otolaryngology clinic. For this reason, otolaryngologists also take a skeptical approach about the consultation requests coming from the emergency room with the prediction that they may be unnecessary. We believe that a detailed evaluation of the cases by an emergency specialist before request of consultation, as well as the cooperation between the emergency care physician and the consulted physician would reduce the rate of unnecessary consultations.

There are few studies in the literature on cases consulted to the otolaryngology clinic. In a study, it was found that 62% of the patients who were consulted to the general surgery clinic did not require surgical intervention and advised to be followed up at the outpatient clinic.¹⁰ In another study, consultation requests from all departments to the otolaryngology clinic were examined, and it was found that 17% of the consultation requests were unnecessary.² A total of 338 consultations were requested in another study examining the cases consulted to the thoracic surgery clinic between 2006 and 2008, and it was reported that the rate of unnecessary consultations among these was 42%.¹¹ In the present study, we determined

that unnecessary consultation was requested in 119 cases (16.1%), which is consistent with the studies in the literature. It is important to determine the profiles of patients requiring consultation in the emergency departments and to evaluate the functioning of the consultation system, and problems related to consultations with regular meetings between clinics, and to organize educational programs in the institutions that train specialist physicians. Thus, unnecessary consultations and waste of time would be avoided and workload would be reduced for both sides.

Donmez et al. reported that additional treatment or diagnostic interventions (2.8%) were the most common causes that extended the consultation period.¹² In addition, they found a significant relationship between the age of patients and the number of consultation requests and the time when patients were admitted to the emergency department and the number of consultation requests. In another study, ENT consultations were examined and it was found that emergency department practitioners had a high level of variability and dissatisfaction with ENT training.¹³ Consistent with these results, we found that diagnostic procedures and additional treatments performed in the emergency department extended consultation times. In addition, we consider that emergency department general practitioners should receive regular training on ENT emergencies.

The retrospective design of the study and examination of a limited number of data from the medical histories of patients was the main limitation of the study. Nevertheless, this study could in-

spire emergency physicians in cases where they intend to request consultation.

CONCLUSION

Consultation requests have a very important place in the operations of the emergency room. However, unnecessary consultation requests lead to incoordination between clinics and loss of time and labor. Being sensitive and highly selective when making consultation requests would ensure that unnecessary consultations are avoided. We consider that emergency department general practitioners should receive regular training on ENT emergencies.

Source of Finance

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: Serkan Çayır; **Design:** Hüseyin Mutlu; **Control/Supervision:** Ekrem Taha Sert; **Data Collection and/or Processing:** Hüseyin Mutlu, Kamil Kokulu; **Analysis and/or Interpretation:** Ekrem Taha Sert; **Literature Review:** Serkan Çayır, Kamil Kokulu; **Writing the Article:** Hüseyin Mutlu, Serkan Çayır; **Critical Review:** Ekrem Taha Sert.

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