CLINICAL STUDY

ANALYSIS OF GERIATRIC OTORHINOLARYNGOLOGICAL EMERGENCIES

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SUMMARY

Objective: The aim of this study was to determine the clinical characteristics of geriatric patients group presenting at the emergency department with complaints of ear, nose and throat (ENT) diseases.

Material and Methods: A retrospective examination was made of the files of 147 patients aged ≥65 years who presented at the emergency department of a tertiary healthcare institution between January 2022 and December 2022 and were referred by the emergency physician to the ENT outpatient clinic. The patients were evaluated in respect of age, gender, diagnosis, surgeries, ENT clinic and intensive care hospitalization, on- and off-duty applications, referral needs and the season of the year at the time of presentation.

Results: ENT consultation was requested for 147 (0.7%) of 18,972 geriatric patients who applied to the emergency department. The patients comprised 67 (45.6%) females and 80 (54.4%) males with a mean age of 71.7 years (range, 65-92 years). Presentations were out-of-hours in 82 (55.8%) cases, and during working hours in 65 (44.2%). The most common diagnoses were epistaxis (25.2%) and tracheotomy cannula problems (17.7%). The highest numbers of presentations were in the winter (30.6%) season. Surgery was performed on 24 patients. Of the total patients, 12 were admitted to the ENT ward and 14 to the intensive care unit. No patient needed referral to another healthcare centre.

Conclusions: ENT consultation was most frequently requested from the emergency department with the diagnosis of epistaxis. Knowing the characteristics of ENT emergency diseases in the geriatric age group will be of guidance in making an implementing the correct diagnosis and treatment approach.

Keywords: Geriatrics, emergency, otorhinolaryngology, epistaxis

GERİATRİK KULAK BURUN BOĞAZ ACİLLERİNİN RETROSPEKTİF ANALİZİ

ÖZET

Amaç: Bu çalışmadaki amaç kulak burun boğaz (KBB) hastalıkları yakınmalarıyla acil servise başvuran geriatrik hasta grubunun özelliklerini tespit etmektir.

Yöntem ve Gereçler: Üçüncü basamak sağlık kuruluşu acil servisine Ocak 2022 ile Aralık 2022 tarihleri arasında başvuran ve acil hekimi tarafından KBB acil polikliniğine konsülte edilen 65 yaş ve üstü 147 hastanın dosyaları geriye dönük olarak incelendi. Hastaların yaşları, cinsiyetleri, tanıları, cerrahileri, servis ve yoğun bakım yatışları, mesai içi ve dışı başvuruları, sevk ihtiyaçları ve başvurdukları mevsimler değerlendirildi.

Bulgular: Acil servise başvuran 18.972 geriatrik hastanın 147'sine (%0,7) KBB konsültasyonu istendi. Hastaların yaş ortalaması 71,7 yıl (65-92) idi. Hastaların 67'si (%45.6) kadın, 80'i (%54.4) erkekti. Mesai dışı başvuru 82 (%55.8) kişi, mesai içi ise 65 (%44.2) kişi idi. Hastalara en fazla konulan tanılar sırasıyla epistaksis (%25.2) ve trakeotomi kanülü problemleri (%17.7) idi. En fazla başvuru kış (%30.6) mevsiminde oldu. 24 hasta ameliyat edildi. Tüm hastaların 12 tanesi KBB servisine, 14 tanesi yoğun bakıma yatırıldı. Hiçbir hastaya sevk ihtiyacı duyulmadı.

Sonuç: Acil servisten en fazla epistaksis tanısı ile KBB konsültasyonu istendiği tespit edildi. Geriatrik yaş grubunda KBB acil hastalıklarının özelliklerinin bilinmesi doğru tanı ve tedavi yaklaşımının belirlenmesinde yol gösterici olacaktır.

Anahtar Sözcükler: Geriatri, acil, kulak burun boğaz, epistaksis

INTRODUCTION

Aging causes changes in all systems and functions of the body and is a complex, individual, irreversible process[1,2]. According to the World Health Organization (WHO), old age begins at the age of 60 years, and according to the United Nations, it begins at the age of 65 years[2] .In 2022, the number of people over the age of 65 years worldwide was reported to be 771 million, corresponding to 9.7% of the global population. It is estimated that this rate will increase to 11.7% by 2030 and 16.4% by 2050. It is also thought that there will be greater increases in the elderly population of North America and Europe, reaching 26.9% of the population by 2050, with one in every 4 people aged >65 years[3]. According to the Turkish Statistical Institute (TUIK), the population of Turkey in 2022 was 85 million. While the number of

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geriatric people in Turkey was 3.9% of the population in 1935, this rate had increased to 9.9% by 2022[4,5]. The decrease in mortality and birth rates and the increase in life expectancy are important reasons for the increase in the elderly population[6]. The management of this age group requires more time, knowledge and energy because of the presence of cognitive and auditory disabilities as well as many comorbidities[7]. Due to these demographic changes, the number of geriatric patients presenting at emergency departments compared to the younger population is increasing day by day, and the follow-up period of these patients in hospital is longer, their urgency is higher, and the rate of returning to the emergency department is higher[8]. The aim of this study was to evaluate geriatric ENT emergency cases who presented at a tertiary-level healthcare facility over a 1-year period.

MATERIAL and METHODS

In this retrospective study, the files were examined of 147 patients aged ≥65 years who presented at the emergency department (ED) of a tertiary-level university hospital with ENT complaints between January 1, 2022 and December 31, 2022 and were referred by the emergency physician to the ENT outpatient clinic. All cases were evaluated by the emergency physician and ENT physician who responsible for the emergency patients of that day. Therefore, the patients were evaluated by different specialist physicians.

There was one tertiary-level university hospital in the city center and there was also no high specialization hospital. There was no geriatrics department in the university hospital. There were state hospitals in the districts. There were also tertiary-level university hospitals in nearby provinces.

The patients were evaluated in respect of age, gender, diagnosis, surgeries, ward and intensive care admissions, referral needs, on-duty and off-duty presentations, and the seasons in which they presented.

Due to the fact that it is a retrospective study and patients were evaluated by different physicians, a grading system could not be used to evaluate patients to assess the severity of conditions.

The study was approved by the Kutahya Health Sciences University Clinical Studies Ethics Committee. (Decision No: 2023-04/03 Date: 08.02.2023).

Patients were excluded from the study if they were aged <65 years, had a direct appointment at the ENT outpatient clinic, if they went directly to ENT without referral from the ED, if they were referred from other wards, or if they did not have any urgent complaints.

Statistics

Data obtained in the study were analyzed statistically using IBM SPSS vn. 21.0 software. (IBM Corp. Armonk, NY: USA). Data were presented with descriptive statistical methods (frequency, percentage, mean±standard deviation values). In the comparison of categorical variables, the Pearson Chi-square test test was used. A value of $p< 0.05$ was considered statistically significant.

RESULTS

During this one-year period, 138,304 patients presented at the ED, of which 18,972 were in the geriatric age group. ENT referrals were made for 869 patients intotal and of these, 147 were in the geriatric patient group. These 147 patients comprised 67 (45.6%) females and 80 (54.4%) males with a mean age of 71.7 years (range, 65-92 years). Age group classification was seen to be 98 in the 65-74 years group (young old), 40 in the 75-84 years group (old), and 9 in the ≥85years age group (very old). Most presentations (98 patients) were in the 65-74 years age group. Outside working hours presentations were recorded in 82 cases and during working hours in 65 (Table 1). The most common diagnoses were epistaxis (25.2%), tracheotomy cannula problems (17.7%), nasal fracture (16.3%), and vertigo (6.1%), respectively.

The diagnoses were classified. Otology; Vertigo 9 (6.1%), foreign body in the ear 6 (4.1%), otitis externa 5 (3.4%), external auditory canal bleeding 4 (2.7%), malignant otitis externa 1 (0.7%), auricle amputation 1 (0.7%), temporomandibular joint dislocation 1 (0.7%), temporal bone fracture 1 (0.7 %). Head and Neck; Maxillofacial trauma 6 (4.1%), neck swelling 6 (4.1%), uvula edema 2 (1.4%), hemoptysis 2 (%1.4), acute lymphadenitis 1 (0.7%), facial cellulitis 1 (0.7%), neck bleeding

due to laryngeal cancer 1 (0.7%), bleeding due to lip cancer 1 (0.7%), tongue hematoma 1 (0.7%), peritonsillar abscess 1 (0.7%).

Laryngology; Tracheotomy cannula problems (blockage of the cannula, dislocation, wanting to change it and dyspnea) 26 (17.7%), foreign body in pharynx and larynx 7 (4.8%), dysphagia 2 (1.4%).

Rhinology; Epistaxis 37 (25.2%), nasal fracture 24 (16.3%).

Of the total patients, 12 were admitted to the ENT ward and 14 to the intensive care unit.

The patients were hospitalized due to nasal fracture 14 (53.8%), epistaxis 4 (15.4%), tracheotomy cannula problems 3 (11.5%), malignant otitis externa 1 (3.8%), auricle amputation 1 (3.8%), neck bleeding due to laryngeal cancer 1 (3.8%), neck swelling 1 (3.8%) and bleeding due to lip cancer 1(3.8%).

Emergency surgery was performed on 24 patients for reasons such as nasal fracture 19 (79.2%), epistaxis 1 (%4.2), malignant otitis externa 1 (%4.2), auricle amputation 1 (%4.2), neck bleeding due to laryngeal cancer 1 (%4.2), and neck swelling 1 (%4.2).

The relationship with the seasons was examined, and it was seen that the most patients presented in the winter (30.6%) and summer (29.3%) (Table 1). No patient required referral to another healthcare institution.

The relationship between gender and diagnosis was examined, and epistaxis was determined to be statistically more common in males (p=0.001) (Table 2).

Hypertension was detected in 19 of 29 (65.5%) male patients and anticoagulant use in 17 (58.6%) of them, and hypertension was detected in 4 of 8 (50%) female patients and anticoagulant use in 1 (12.5%) of them.

Epistaxis were managed with medical treatment in 6 (%16.2) patients, silver nitrate cauterization in 20 patients (%54), anterior packing in 8 (%21.6) patients, posterior packing in 2 (%5.4) patients and sphenopalatine artery ligation in 1 (%2.7) patient. Two patients were admitted to the intensive care unit and 2 patients were admitted to the ENT ward.

When the diagnoses were evaluated according to age groups, vertigo and tracheotomy cannula problems were statistically more frequently observed in the 65-74 years age group (p=0.023, p=0.001), and nasal fracture was observed most frequently in the 75-84 years age group (p=0.004) (Table 3). In the evaluation of the relationship between diagnosis and season of presentation, maxillofacial trauma was determined to be most common in the autumn (p=0.011), and tracheotomy cannula problems were most common in the summer (p=0.021) (Table 4).

Table 1. Distribution of demographic findings, application times and seasons in which they presented.

		n	%
Sex			
	Male	80	54,4
	Female	67	45,6
Age			
	65-74 (young old)	98	66,7
	75-84 (old)	40	27,2
	≥85 (very old)	9	6,1
Application Time			
	on-duty	65	44,2
	of-duty	82	55,8
Season			
	Autumn	25	17,0
	Winter	45	30,6
	Spring	34	23,1
	Summer	43	29,3

Table 2. Distribution of diagnosis according to gender.

Diagnosis	**Gender**		**p**
	Male n (%)	Female n (%)	
Otology			
Otitis externa	3 (60,0)	2 (40,0)	0,799
Vertigo	2 (22,2)	7 (77,8)	0,080
Foreign body in the ear	4 (66,7)	2 (33,3)	0,699
Malignant otitis externa	0 (0,0)	1 (100,0)	0,456
External auditory canal bleeding	3 (75,0)	1 (25,0)	0,626
Auricle amputation	1 (100,0)	0 (0,0)	0,358
Temporomandibular joint dislocation	0 (0,0)	1 (100,0)	0,456
Temporal bone fracture	1 (100,0)	0 (0,0)	0,358
Head and Neck			
Acute lymphadenitis	1 (100,0)	0 (0,0)	0,358
Uvula edema	2 (100,0)	0 (0,0)	0,501
Facial cellulitis	0 (0,0)	1 (100,0)	0,456
Maxillofacial trauma	3 (50,0)	3 (50,0)	1,000
Neck Swelling	2 (33,3)	4 (66,7)	0,412
Hemoptysis	2 (100,0)	0 (0,0)	0,501
Neck bleeding due to laryngeal cancer	0 (0,0)	1 (100,0)	0,456
Bleeding due to lip cancer	0 (0,0)	1 (100,0)	0,456
Tongue hematoma	0 (0,0)	1 (100,0)	0,456
Peritonsillar abscess	1 (100,0)	0 (0,0)	0,358
Laryngology			
Foreign body in pharynx and larynx	2 (28,6)	5 (71,4)	0,246
Tracheotomy cannula problems	12 (46,2)	14 (53,8)	0,351
Dysphagia	1 (50,0)	1 (50,0)	1,000
Rhinology			
Epistaxis	29 (78,4)	8 (21,6)	**0,001**
Nasal fracture	10 (41,7)	14 (58,3)	0,170

Table 3. Distribution of diagnosis according to age groups.

Diagnosis	Age			p
	65-74 n (%)	75-84 n (%)	85+ n (%)	
Otology				
Otitis externa	3 (60,0)	2 (40,0)	0 (0,0)	0,727
Vertigo	7 (77,8)	0 (0,0)	2 (22,2)	**0,023**
Foreign body in the ear	4 (66,7)	2 (33,3)	0 (0,0)	1,000
Malignant otitis externa	0 (0,0)	1 (100,0)	0 (0,0)	0,341
External auditory canal bleeding	3 (75,0)	1 (25,0)	0 (0,0)	1,000
Auricle amputation	1 (100,0)	0 (0,0)	0 (0,0)	1,000
Temporomandibuler joint dislocation	1 (100,0)	0 (0,0)	0 (0,0)	1,000
Temporal bone fracture	1 (100,0)	0 (0,0)	0 (0,0)	1,000
Head and Neck				
Acute lymphadenitis	0 (0,0)	0 (0,0)	1 (11,1)	0,064
Uvula edema	2 (100,0)	0 (0,0)	0 (0,0)	1,000
Facial cellulitis	1 (100,0)	0 (0,0)	0 (0,0)	1,000
Maxillofacial trauma	3 (50,0)	2 (33,3)	1 (16,7)	0,343
Neck swelling	5 (83,3)	1 (16,7)	0 (0,0)	0,777
Hemoptysis	1 (50,0)	1 (50,0)	0 (0,0)	0,550
Neck bleeding due to laryngeal cancer	1 (100,0)	0 (0,0)	0 (0,0)	1,000
Bleeding due to lip cancer	0 (0,0)	0 (0,0)	1 (100,0)	0,064
Tongue hematoma	1 (100,0)	0 (0,0)	0 (0,0)	1,000
Peritonsillar abscess	1 (100,0)	0 (0,0)	0 (0,0)	1,000
Laryngology				
Foreign body in pharynx and larynx	5 (71,4)	2 (28,6)	0 (0,0)	1,000
Tracheotomy cannula problems	25 (96,2)	1 (3,8)	0 (0,0)	**0,001**
Dysphagia	2 (100,0)	0 (0,0)	0 (0,0)	1,000
Rhinology				
Epistaxis	21 (56,8)	15 (40,5)	1 (2,7)	0,090
Nazal fracture	9 (37,5)	12 (50,0)	3 (12,5)	**0,004**

Table 4. Distribution of diagnosis according to seasons in which they presented.

Diagnosis	Season				p
	Autumn n (%)	Winter n (%)	Spring n (%)	Summer n(%)	
Otological					
Otitis externa	1 (20,0)	3 (60,0)	1 (20,0)	0 (0,0)	0,314
Vertigo	2 (22,2)	3 (33,3)	3 (33,3)	1 (11,1)	0,646
Foreign body in the ear	1 (16,7)	3 (50,0)	1 (16,7)	1 (16,7)	0,843
Malignant otitis externa	0 (0,0)	0 (0,0)	1 (100,0)	0 (0,0)	0,398
External auditory canal bleeding	0 (0,0)	0 (0,0)	2 (50,0)	2 (50,0)	0,261
Auricle amputation	1 (100,0)	0 (0,0)	0 (0,0)	0 (0,0)	0,167
Temporomandibular joint dislocation	0 (0,0)	1 (100,0)	0 (0,0)	0 (0,0)	1,000
Temporal bone fracture	1 (100,0)	0 (0,0)	0 (0,0)	0 (0,0)	0,167
Head and Neck					
Acute lymphadenitis	0 (0,0)	1 (100,0)	0 (0,0)	0 (0,0)	1,000
Uvula edema	1 (50,0)	0 (0,0)	0 (0,0)	1 (50,0)	0,429
Facial cellulitis	1 (100,0)	0 (0,0)	0 (0,0)	0 (0,0)	0,167
Maxillofacial trauma	4 (66,7)	1 (16,7)	1 (16,7)	0 (0,0)	**0,011**
Neck swelling	0 (0,0)	2 (33,3)	2 (33,3)	2 (33,3)	0,800
Hemoptysis	0 (0,0)	1 (50,0)	1 (50,0)	0 (0,0)	0,817
Neck bleeding due to laryngeal cancer	0 (0,0)	1 (100,0)	0 (0,0)	0 (0,0)	1,000
Bleeding due to lip cancer	0 (0,0)	1 (100,0)	0 (0,0)	0 (0,0)	1,000
Tongue hematoma	0 (0,0)	0 (0,0)	1 (100,0)	0 (0,0)	0,398
Peritonsillar abscess	0 (0,0)	0 (0,0)	0 (0,0)	1 (100,0)	0,694
Laryngeal					
Foreign body in pharynx and larynx	1 (14,3)	3 (42,9)	1 (14,3)	2 (28,6)	0,948
Tracheotomy cannula problems	4 (15,4)	5 (19,2)	3 (11,5)	14 (53,8)	**0,021**
Dysphagia	1 (50,0)	0 (0,0)	1 (50,0)	0 (0,0)	0,154
Rhinological					
Epistaxis	2 (5,4)	12 (32,4)	10 (27,0)	13 (35,1)	0,181
Nasal fracture	4 (16,7)	8 (33,3)	6 (25,0)	6 (25,0)	0,962

DISCUSSION

With the global decrease in birth rates and the increase in average life expectancy, the number of older adults in society is increasing rapidly[9], and it has been stated that for the first time in recent history, the number of geriatric people will exceed the 0-5 years age group[10]. Therefore, the number of geriatric ENT patients is also increasing significantly. Creighton et al. examined 131,070 otolaryngology patients by age group between 2004 and 2010 in the USA and found that the number of geriatric patients, which was 14.3% in 2004, increased statistically significantly to 17.9% in 2010. Unlike other age groups, otological complaints were seen to be the most common in the geriatric age group[11]. This general increase in the older adult population has

led to a continuous increase in the number of geriatric patients presenting at Eds[12]. According to TUIK data, our city's population in 2022 was 580,701. The male population was 286,833 and the female population was 293,868. The number of geriatric persons over 65 years of age was 81,117[4]. In the one-year period of the current study, 138,304 patients presented at ED, of which 18,972 were in the geriatric age group, and of these, ENT referrals were made for 147. It was determined that these patients presented most frequently with rhinological complaints.

The diagnosis and treatment of the geriatric age group in ED is different from that of the younger age group. Due to the presence of comorbid diseases, the management of geriatric diseases and injuries is more complicated than for younger patients[13]. More than 20 years ago, the American Geriatrics Society recognized that it would need help managing this increasing patient volume and encouraged education and research on this subject for ENT physicians. For this special group of geriatric patients, geriatric surgery and medical sub-branches have emerged in the USA together with geriatric ENT, and the American Geriatric ENT Association was established in 2007[10].

Only a small number of geriatric ENT emergencies have been examined in the literature. Dagan et al. reported that in Israel, elderly patients who presented at the ENT emergency department complained of balance disorders (23.45%), trauma (15.75%), nose bleed (13.57%), ear and hearing disorders (13.57%), swallowing disorders and foreign body (11.39%)[14]. In the current study, the most common diagnosis was epistaxis (25.2%) and vertigo was detected at the rate of 6.1 % and ranked 4th. The higher frequency of vertigo (p= 0.023) in the 65-74 age group may be related to the onset of chronic diseases, drug use, and vestibular system degeneration.

In a study in Taiwan by Chi et al., the most common diagnosis in geriatric ENT emergencies was seen to be acute upper respiratory tract infections (URTI) (28.1%). It was emphasized that URTI are not an emergency situation for reasons such as spontaneous resolution of symptoms, good prognosis, and that treatment can be arranged by general practitioners. Foreign body ingestion was the second most common (24.1%) diagnosis, followed by epistaxis (11.9%)[13]. In the current study, there were no referrals from the ED for URTI and the patient treatments were arranged by emergency physicians. However, it was observed that ENT referral was made for cases such as peritonsillar abscess, cellulitis and edema.

In a study in Nigeria, Adegbiji et al. showed that 29.5% of the most common geriatric ENT emergencies were trauma\traffic accident\foreign body ingestion, 25.8% were tumor, 17.4% were infection\inflammation and 15.9% were degenerative changes due to aging[15]. In another study conducted in Nigeria by Ibekwe et al., it was reported that 55% of patients over the age of 65 years who presented at the ENT emergency department had obstruction in the pharyngolaryngeal region, mostly due to malignant tumors. This was followed by the frequency of 20.7% nasal, 11.5% otological, 9.7% esophageal, and 3.1% head and neck pathologies, and 54% of the patients required emergency tracheotomy[16].

In a study conducted by Yıldırım et al. in Turkey, it was observed that 195 of 12,780 geriatric patients (1.5%) who presented at the ED of a tertiary-level healthcare institution in a 1-year period were referred to the ENT department. Consultations were requested most frequently due to maxillofacial trauma (31.7%), followed by epistaxis (18.7%), dyspnea (9.7%) and facial paralysis (9.7%), and 9.7% of the patients were hospitalized[17]. In the current study, the most common reason for admission to the ENT emergency department in the geriatric age group was determined to be epistaxis (25.2%), followed by tracheotomy cannula problems (17.7%). Epistaxis was statistically more common in males (p=0.001). The main reason why epistaxis is more common in geriatric male patients than in women is the higher rates of hypertension and anticoagulant use. It was observed that geriatric patients did not have regular cardiology and internal medicine check-ups and did not use their medications regularly and in appropriate doses.

Patients with epistaxis are usually elderly, weak, have comorbid diseases, and are taking antiplatelet or anticoagulant medications, and they can be difficult to manage effectively, so they should not be taken lightly[18].

In this study, severe epistaxis cases were managed with posterior packing in 2 (%5.4) patients and sphenopalatine artery ligation in 1 (%2.7) patient.

The low number of maxillofacial traumas (%4.1) was due to the fact that this patient group is evaluated by plastic surgeons in our hospital. During the period when a plastic surgeon was not available or could not be reached, ENT consultation was requested for six patients due to maxillofacial trauma. However, nasal fractures, which were not evaluated among maxillofacial traumas, were observed in the 3rd place (16.3%). The higher frequency of nasal fractures (p= 0.004) in the 75-84 age group may be explained by bone fragility and increased risk of falling. The highest number of presentations were in the winter (30.6%) and summer (29.3%) seasons. In addition, maxillofacial trauma was most common in the autumn (p=0.011), and tracheotomy cannula problems were most common in the summer (p=0.021). This was thought to be related to the climate characteristics of the region, as winter and autumn are cold and icy, thus, traffic accidents and falls occur frequently, whereas summers are hot with low humidity and thus especially causes cannula blockages. The higher frequency of tracheotomy cannula problems (p=0.001) in the 65-74 age group may be explained by the onset of additional systemic diseases, medications used, respiratory diseases, and lack of sufficient knowledge about tracheotomy cannula care.

Twentysix of the patients were hospitalized and emergency surgery was performed on 24 patients. No patient required referral to another healthcare institution.

Limitations of our study since it was a retrospective study, all the information of the patients could not be accessed, it was limited to a single center third-level hospital, long-term follow-up information of the patients was not available. Further research with prospective and multicenter studies would provide a more comprehensive understanding of geriatric ENT emergencies.

The geriatric age group is increasing every year with the advances in modern medicine and increasing life expectancy. For faster and more effective management of the health problems of the geriatric emergency ENT patient group in Turkey, it would be appropriate to hold regular meetings, seminars and training sessions with geriatric physicians, family physicians, emergency physicians and ENT physicians. To be able to implement appropriate and rapid approaches to the geriatric ENT emergency patient group, it is important that the epidemiological and clinical profiles of this patient group are well known.

CONCLUSION

The results of this study demonstrated that ENT consultation was most frequently requested from the emergency department due to epistaxis in the geriatric age group, therefore emergency services need to be better prepared to manage such cases. In addition, it would be an appropriate approach for geriatric patients to be evaluated at regular intervals, especially by family physicians and cardiologists, in terms of hypertension and anticoagulant use.

Knowing the characteristics of ENT emergency diseases in the geriatric age group will be of guidance in making an accurate and rapid diagnosis and implementing the correct emergency treatment approach.

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