

Evaluation of the characteristics of the patients hospitalized in the internal diseases clinic in a third-level hospital a single-center experience

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ABSTRACT

Objective: General internal medicine clinics are units where patients are evaluated holistically and systematically by working together with other branches of specialization. In the present study, the purpose was to reveal the general internal medicine practice by examining the characteristics and reasons for the hospitalization of patients in the general internal medicine clinic of a third-level university hospital.

Material and Methods: The data of patients who were hospitalized between 01.10.2020 and 01.10.2022 in Afyonkarahisar Health Sciences University, Faculty of Medicine, Internal Medicine Clinic, General Internal Medicine Ward were obtained. The demographic data, reasons for hospitalization, and hospitalization areas of the patients were examined.

Results: A total of 714 patients were included in the present study. The mean age of the patients was 59.9. The most common reason for hospitalization was symptomatic anemia and malignancy screening. Although symptomatic anemia was the most common reason for hospitalization over 65 years of age, intoxications were observed in patients under 65 years of age and the most common reason for hospitalization from the emergency units was acute pancreatitis, the most common reason for hospitalization from clinics was malignancy examination.

Conclusion: General internal medicine clinics have a wide spectrum in terms of hospitalization causes. The most common reasons for admission to these units are anemia, malignancy examination, and electrolyte disorders.

Keywords: internal medicine, inpatient, anemia

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INTRODUCTION

Internal medicine clinics are units where many chronic diseases are followed up. These clinics play important roles in diagnosing and treating pathologies involving almost all internal organs. Polyclinic, service, and consultation services are provided in these units for patients from the age of 18 on a wide age spectrum, including the geriatric population.

Today, with the increased branching in medicine, the local perspective on the patient has come to the forefront, and the general and holistic approach to diseases has decreased. General internal medicine clinics work together with other specialties and approach patients and diseases with a holistic aspect. In the present study, the purpose was to evaluate the demographic characteristics, reasons for hospitalization, and hospitalization units of the patients hospitalized in a tertiary hospital's general internal medicine clinic, and to reveal the general internal medicine practice.

MATERIAL and METHODS

The information of the patients who were hospitalized between 01.10.2020 and 01.10.2022 in Afyonkarahisar Health Sciences University, Faculty of Medicine, Internal Medicine Clinic, General Internal Medicine Ward were scanned from the hospital electronic file system. The age, gender, reasons for hospitalization, and hospitalization units (i.e., emergency units, outpatient clinics, etc.) of these patients were reached and evaluated.

According to the definition by the World Health Organization (WHO), a hemoglobin value of <12 g/dl in women and <13 g/dl in men is accepted as anemia (1). Hemoglobin <10 and resting tachycardia and dyspnea because of anemia were evaluated as symptomatic anemia. The patients who applied after taking high-dose drugs for suicidal purposes, and patients with symptomatic complaints after eating mushrooms were considered intoxicated.

Statistical analysis: The SPSS 26.0 (IBM Corp. 2019 IBM SPSS Statistics for Windows, version 26.0. Armonk, NY: IBM Corp.) program was used for statistical evaluations.

RESULTS

A total of 714 patients were included in the study. Among these, 328 (46%) were male and 386 (54%) were female. The youngest of the patients was 18 years old, and the oldest was 93 years old. Although the mean age of women was 58.90, it was 60.01 in men. The overall mean age was found to be 59 years. The age-gender distribution of the patients who were under 65 years of age and over is given in Table 1 (Table 1).

When the reasons for the hospitalization of the patients were examined, it was seen that the most common reason was symptomatic anemia in 101 (14.1%) patients. It was found that the most common reason for hospitalization in patients under 65 years old was intoxication with 62 people (8.7%), and hospitalizations for symptomatic anemia with 52 people (7.3%) in people over 65 years of age. The reasons for the hospitalization of the patients are given in Table 2 (Table 2)

Distribution of patients hospitalized with electrolyte imbalance: Among the 60 patients, 23 (38%) were hospitalized with hyponatremia and 19 (31%) with hypercalcemia.

Among the 60 patients who were hospitalized because of infection, the most common reason for hospitalization was pneumonia with 22 patients (36%), and urinary system infections were in second place with 19 people (31%).

Regarding the hospitalization units of the patients, it was found that 363 patients (50.8%) were hospitalized by the emergency department, 322 patients (45%) from the outpatient clinic, and 29 patients (4.2%) from other wards and intensive care units. Although acute pancreatitis was the most common diagnosis of hospitalization in the emergency department, it was found that the most common malignancy examination patients were admitted to the outpatient clinic. The distribution of the reasons for hospitalization according to the hospitalized units is given in Table 3 (Table 3).

Table 1: The age and gender distribution of the patients who were included in the study

	<65 YEARS OF AGE (N, %)	>65 YEARS OF AGE (N, %)	TOTAL (N, %)
MALE	167 (50.9%)	161 (49.1%)	328
FEMALE	204 (52.8%)	182 (47.2%)	386
TOTAL	371 (52%)	343 (48%)	714

Table 2: The frequency of hospitalization reasons

REASON FOR ADMISSION	<65 YEARS OF AGE (N, %)	>65 YEARS OF AGE (N, %)	TOTAL (N, %)
Acute kidney failure	19 (2.7)	46 (6.4)	65 (9.1)
Adrenal Insufficiency	9 (1.3)	1 (0.1)	10 (1.4)
Acute gastroenteritis	8 (1.1)	2 (0.3)	10 (1.4)
Acute cholecystitis	9 (1.3)	5 (0.7)	14 (2)
Acute pancreatitis	53 (7.4)	32 (4.5)	85 (11.9)
Acid etiology	4 (0.6)	3 (0.4)	7 (1)
DM Regulation	38 (5.3)	22 (3.1)	60 (8.4)
Electrolyte imbalance	22 (3.1)	38 (5.3)	60 (8.4)
Infection	25 (3.5)	35 (4.9)	60 (8.4)
General condition disorder	1 (0.1)	7 (1)	8 (1.1)
GI bleeding	15 (2.1)	20 (2.8)	35 (4.9)
Hepatic encephalopathy	1 (0.1)	3 (0.4)	4 (0.6)
Hyperbilirubinemia	3 (0.4)	6 (0.8)	9 (1.3)
Hypertensive attack	0 (0)	8 (1.1)	8 (1.1)
Hypervolemia	2 (0.3)	9 (1.3)	11 (1.5)
Intoxication	62 (8.7)	3 (0.4)	65 (9.1)
LFT elevation	7 (1)	1 (0.1)	8 (1.1)
Malignancy screening	44 (6.2)	50 (7)	94 (13.2)
Symptomatic anemia	49 (6.9)	52 (7.3)	101 (14.1)
TOTAL	371 (52)	343 (48)	714

*DM: diabetes mellitus, GI bleeding: gastrointestinal bleeding, LFT: liver function tests

Table 3: The distribution of the hospitalization reasons of patients according to hospitalization units

REASON FOR ADMISSION	EMERGENCY UNIT	POLYCLINIC	CYCLE	TOTAL
Acute kidney failure	43(66.1)	21(32.3)	1(1.6)	65(100)
Adrenal Insufficiency	-	10(100)	-	10(100)
Acute gastroenteritis	2(20)	8(80)	-	10(100)
Acute cholecystitis	9(64.2)	5(35.8)	-	14(100)
Acute pancreatitis	80(94.1)	4(4.7)	1(1.2)	85(100)
Acid etiology	-	7	-	7(100)
DM Regulation	7(11.7)	51(85)	2(3.3)	60(100)
Electrolyte imbalance	42(70)	16(26.7)	2(3.3)	60(100)
Infection	17(28.3)	36(60)	7(11.7)	60(100)
General condition disorder	4(50)	4(50)	-	8(100)
GI bleeding	35(100)	-	-	35(100)
Hepatic encephalopathy	2(50)	-	2(50)	4(100)
Hyperbilirubinemia	6(66.6)	2(22.2)	1(11.1)	9(100)
Hypertensive attack	1(12.5)	7(87.5)	-	8(100)
Hypervolemia	1(9.3)	8(72.7)	2(18.1)	11(100)
Intoxication	54(83.2)	4(6.1)	7(10.7)	65(100)
LFT elevation	3(37.5)	3(37.5)	2(25)	8(100)
Malignancy screening	13(13.8)	79(84)	2(2.2)	94(100)
Symptomatic anemia	44(43.5)	57(56.5)	-	101(100)
TOTAL	363(50.8)	322(45)	29(4.2)	714(100)

*DM: diabetes mellitus, GI bleeding: gastrointestinal bleeding, LFT: liver function tests

DISCUSSION

Internal medicine clinics are important units where patients with multiple chronic diseases and metabolic and infectious disorders are treated. The practice of general internal medicine clinics has started to change with the increased sub-branches and specializations. General internal medicine clinics aim to maintain a multisystem and holistic approach to the patient and to work in coordination with the branches to ensure the highest efficiency. The present study aimed to reveal the general internal medicine practice by examining the patients hospitalized in the general internal medicine clinic in a third-level university hospital.

In a study examining the patients hospitalized in the general internal medicine clinic that was conducted by Karahan I and Çiftçi A, the average age of the patients was found to be 71, and diabetic problems, electrolyte imbalance, and anemia were found to be the most common reasons for hospitalization (2). In another study examining 262 patients hospitalized in the internal medicine clinic during the pandemic period, the mean age of the patients was found to be 63.3, and the rate of patients over 65 was 57%. In the same study, the most common reason for hospitalization was found to be gastrointestinal bleeding, followed by anemia testing and malignancy screening patients, respectively (3). In the present study, the mean age of the patients was 59, and anemia and malignancy were the most common reasons for hospitalization. The study is similar to other studies in the literature regarding the reason for hospitalization.

Individuals who are over the age of 65 are defined as old by the World Health Organization, and individuals over the age of 85 are defined as very old (4). Internal medicine clinics are polyclinics where the geriatric population is frequently hospitalized for treatment purposes. In a previous study conducted by Nalbant A et al. examining the diagnostic distribution of patients over the age of 65 hospitalized in the general internal medicine clinic, it was reported that the most common diagnosis for hospitalization was symptomatic anemia with a rate of 60% (5).

In another study conducted by Kilit et al. in which geriatric patients who were hospitalized in the internal medicine clinic were evaluated, the most common causes of hospitalization were found to be hyperglycemia and anemia (6). In the present study, the most common reason for hospitalization in individuals over 65 years of age was found to be symptomatic anemia, in line with the literature data, and electrolyte imbalance ranked second.

It was seen in the present study that the most common reason for hospitalization in individuals under the age of 65 was intoxication (i.e., fungi, and suicidal drugs). Intoxication is exposure to an agent that may cause dysfunction in a living organism. Cases of intoxication constitute approximately 0.46-1.57% of all the diagnoses on admission to the emergency department (7). This patient group is admitted to general internal medicine clinics, anesthesia, and psychiatry clinics. In a study examining the patients hospitalized in the general internal medicine clinic conducted by Karahan I and Çiftçi A, patients hospitalized with the diagnosis of intoxication made up 1.6% of the total patients (2). In the present study, it made up approximately 9%. This difference is because of the lack of a clear consensus on the department where these patients will be hospitalized.

Internal medicine clinics admit patients through consultation from the emergency and external wards or polyclinics. In previous studies, internal medicine clinics were found to be at the forefront of the departments where consultation is requested the most from emergency units (8, 9). In the present study, 50.8% of patients hospitalized in the general internal medicine clinic were hospitalized from the emergency units and 45% from the polyclinics. It was also found that the most common reason for hospitalization from the emergency units was acute pancreatitis, and the most common reason for hospitalization from the outpatient clinic was a malignancy examination.

CONCLUSION

As a result, symptomatic anemia and malignancy test patients are among the leading causes of hospitalization of patients who are hospitalized in the general internal medicine clinic. More comprehensive and multicenter studies are needed to determine general internal medicine practice.

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