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ORIGINAL ARTICLE / ÖZGÜN ARAŞTIRMA

Emergency service visits of fibromyalgia patients

Fibromyalji hastalarının acil servis başvuruları

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ABSTRACT

Objective: We aimed to evaluate the emergency service admission frequencies of fibromyalgia patients with their sociodemographic properties.

Methods: A questionnaire form was applied to 136 fibromyalgia patients who admitted to our Physical Treatment and Rehabilitation Clinic and a control group of 132 non-fibromyalgia adult volunteers.

Results: Last emergency service admission complaints ($p<0.05$), last emergency service admission time ($p<0.05$), satisfaction of last emergency visits ($p<0.05$) of the groups were significantly different but result of last emergency admissions ($p>0.05$) were not different.

In the fibromyalgia group, status of working is negatively correlated with satisfaction of last emergency visit ($p<0.05, r = -0.170$). Number of persons at home is positively correlated with frequency of emergency visit ($p<0.05$, $r = 0.255$), frequency of outpatient clinic admission ($p<0.05, r = -0,204$) and result of last emergency admission ($p<0.05, r = 0,224$).

Conclusion: Detailed evaluation of fibromyalgia patients' symptoms and sociodemographic properties and appropriate treatment of these patients may be beneficial for decreasing their emergency service admission rates. *J Clin Exp Invest 2014; 5 (4): 539-543*

Key words: Fibromyalgia, emergency service, sociodemographic properties

ÖZET

Amaç: Çalışmamızda, fibromiyalji hastalarını sosyodemografik özellikleri ile birlikte değerlendirerek acil servis başvuru sıklıklarını belirlemeyi amaçladık.

Yöntemler: Fizik tedavi ve rehabilitasyon polikliniğimize başvuran 136 fibromiyalji hastasına ve 132 kişilik fibromiyalji olmayan gönüllü kontrol grubuna anket formu uygulandı.

Bulgular: Gruplar arasında son acil servis başvuru şikayeti ($p<0,05$), son acil servis başvuru zamanı ($p<0,05$), son acil servis başvuru memnuniyeti ($p<0,05$) anlamlı fark bulunurken, son acil servis başvurularındaki sonuçlanma şekilleri arasında fark yoktu ($p>0,05$). Fibromyalji grubunda çalışma durumu son acil servis başvuru memnuniyeti ile negatif olarak korele idi ($p<0,05$, $r = -0,170$). Evde yaşayan kişi sayısı ($p<0,05$, $r = 0,255$), normal poliklinik başvuru sıklığı ($p<0,05$, $r = -0,204$) ve son acil servis sonuçlanma şekli ($p<0,05$, $r = 0,224$) ile acil servis başvuru sıklığı arasında pozitif korelasyon bulundu.

Sonuç: Fibromyalji hastalarının semptom ve sosyodemografik özelliklerinin ayrıntılı değerlendirilmesi ve uygun tedavi bu hastaların acil servis başvuru sıklıklarını azaltmada faydalı olabilir.

Anahtar kelimeler: Fibromiyalji, acil servis, sosyodemografik özellik

INTRODUCTION

It is known that 10% to 12% of the general population has chronic generalized musculoskeletal pain without a specific structural or inflammatory cause [1]. This idiopathic widespread pain most often fits the classification criteria for fibromyalgia syndrome (FMS) [2]. History of widespread pain, defined as bilateral, upper and lower body, as well as spine, and the presence of excessive tenderness on applying pressure to 11 of 18 specific muscle-tendon sites are enough for a patient to be diagnosed with FMS [3]. FMS prevalence is 2% in the United States, including 3.4% of women and 0.5% of men [4,5]. Fibromyalgia is the second most common disorder after osteoarthritis observed by rheumatologists [6,7]. Psychosocial factors contribute greatly to the clinical expression of FMS and related dis-

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orders [8]. Kirmayer and colleagues studied in 20 FMS patients and 23 rheumatoid arthritis controls and found no significant difference in current or lifetime depression. While they did not conclude, as other investigators did, that fibromyalgia was a type of somatized depression, they did report that the fibromyalgia patients had more somatic symptoms of obscure origin, had more numerous somatic complaints, had endured more surgical procedures, and had sought medical help more frequently [9]. FMS results in profound suffering, including widespread musculoskeletal pain and stiffness, fatigue, disturbed sleep, dyscognition, affective distress, and very poor quality of life [10,11].

This cross-sectional study aimed to investigate the reasons and the frequency of emergency visits of fibromyalgia patients. We also tried to evaluate the sociodemographic properties and comorbid psychopathologies of fibromyalgia patients to help emergency physicians for emergency intervention and treatment of these patients.

METHODS

After the Bozok University Ethics Council approval, questionnaire form was applied to 136 fibromyalgia patients who admitted to our Physical Treatment And Rehabilitation Clinic. And also, a control group of 132 non-fibromyalgia adult volunteers were included to the study. Control group was constituted of non-FMS volunteers. All participants were questionnaired for age, gender, working/nonworking, monthly income, how many people she/he is living with at home, having a chronical disease, usage of antidepressants, the last emergency service admission complaint/time, frequency of emergency admissions, frequency of admissions to an outpatient clinic, result of last emergency admission, satisfaction of the patient from the last emergency service doctor and the doctor's intervention. The questionnaire form was prepared by the researchers.

Statistical Package for Social Sciences (SPSS) for Windows 20.0 program was used for statistical analysis. Continuous variables were expressed as mean standard deviation (SD) and categorical variables were expressed as percentage. An analysis of normality of the continuous variables was performed with the Kolmogorov-Smirnov test. Differences in the means of continuous variables between groups (fibromyalgia-nonfibromyalgia) were analyzed using Kruskal-Wallis test. Continuous variables were also compared using an independent-groups Chi-Square test because normality assumptions were not met. Spearman correlation test was used for correlation analyses. A p-value of <0.05 was considered statistically significant.

RESULTS

We included 124 (91.2%) females, 12 males (8.8%) totally 136 fibromyalgia patients to our study. The control group was constituted of 105 (79.5%) females, 27 (20.5%) males totally 132 adult volunteers. Mean age of fibromyalgia patients was 42.00+/ ± 8.934. Mean age of the control group was 36.21 ± 6.957. We couldn't find a significant difference according to working status between groups (p>0.05). But there were significant differences between groups with respect to monthly income (p<0.05), count of persons living together at home (p<0.05) (Table 1). History of chronic disease (p<0.05), frequency of an outpatient clinic admission (p<0.05), frequency of emergency service admissions (p<0.05) of groups were significantly different (Table 2). Last emergency service admission complaints (p<0.05), last emergency service admission time (p<0.05), satisfaction of last emergency visits (p<0.05) of the groups were significantly different but result of last emergency admissions (p>0.05) were not different (Table 3).

In the FMS group, gender is positively correlated with status of working (p<0.05, r = 0.482), result of last emergency admission (p<0.05, r = 0.363) and negatively correlated with having chronic disease (p<0.05, r = -.350). Status of working is positively correlated with monthly income (p<0.05, r = 0.550) but negatively correlated with satisfaction of last emergency visit (p<0.05, r = -0.170). Monthly income is positively correlated with last emergency admission complaint (p<0.05, r = 0.258). Number of persons at home is positively correlated with chronic disease (p<0.05, r = 0.192). Frequency of emergency visit (p<0.05.r = 0.255). frequency of outpatient clinic admission (p<0.05.r = 0-.204) and result of last emergency admission (p<0.05.r = 0.224). Presence of chronic disease is positively correlated with last emergency admission complaint (p<0.05.r = 0.451). Last emergency service admission complaint is correlated with satisfaction (p<0.05, r = -.170). Frequency of emergency service admission and frequency of outpatient clinic admission are positively correlated (p<0.05.r = 0.465). Frequency of emergency service admission and last emergency service admission time are positively correlated (p<0.05, r = 0.680). Frequency of outpatient clinic admission and last emergency service admission

time are positively correlated (p<0.05, r = 0.471). Result of last emergency admission is positively correlated with satisfaction of last emergency service visit (p<0.05, r = -0.173). Satisfaction of last emergency service visit is negatively correlated with last emergency admission time (p<0.05, r = -0.199).

Table 1. Job status, monthly income, count of persons living together at home of the groups

		FMS Group n (%)	Controls n (%)	p
Job status	Nonworking	96 (70.6)	88 (66.7)	0.489
	Working	40 (29.4)	44 (33.3)	
	Total	136 (100)	132 (100)	
Monthly income	Under 1000 TL	64 (47.1)	63 (47.7)	0.047
	1000-2000 TL	52 (38.2)	51 (38.6)	
	2000-5000 TL	20 (14.7)	12 (9.1)	
	5000-10000 TL	0 (0)	6 (4.5)	
	Total	136 (100)	132 (100)	
Count of persons at home	1	4 (2.9)	22 (16.7)	<0.001
	2	24 (17.6)	39 (29.5)	
	3	36 (26.5)	29 (22.0)	
	>3	72 (52.9)	42 (31.8)	
	Total	136 (100)	132 (100)	

TL: Turkish Liras, FMS: Fibromyalgia syndrome

Table 2. Chronic disease, antidepressant usage, frequency of an outpatient clinic admission, frequency of emergency service admissions of groups

		FMS Group n (%)	Controls n (%)	p
Chronical Disease	(+)	60 (44.1)	29 (22)	<0.001
	(-)	76 (55.9)	103 (78)	
	Total	136 (100)	132 (100)	
Antidepressant usage	(+)	44 (32.4)	29 (22)	0.056
	(-)	92 (67.6)	103 (78)	
	Total	136 (100)	132 (100)	
Frequency of an outpatient clinic admission	Once a week	4 (2.9)	0 (0)	<0.001
	Once a month	40 (29.4)	5 (3.8)	
	Once per 3 months	60 (44.1)	12 (9.1)	
	Once per 6 months	20 (14.7)	29 (22.0)	
	Once per year	8 (5.9)	59 (44.7)	
	Once per more than 1 year	4 (2.9)	27 (20.5)	
	Total	136 (100)	132 (100)	
Frequency of emergency service admission	Once a month	12 (8.8)	0 (0)	<0.001
	Once per 3 months	52 (38.2)	0 (0)	
	Once per 6 months	28 (20.6)	12 (9.1)	
	Once per year	32 (23.5)	41 (31.1)	
	Once per more than 1 year	12 (8.8)	79 (59.8)	
	Total	136 (100)	132 (100)	

FMS: Fibromyalgia Syndrome

Table 3. Last emergency service admission complaint, last emergency service admission time, result of last emergency admission, satisfaction of last emergency visits of the groups

		FMS Group n (%)	Controls n (%)	p
Last ES admission complaint	Musculoskeletal pain	52 (38.2)	17 (12.9)	<0.001
	Neurological symptoms	28 (20.6)	35 (26.5)	
	GIS symptoms	8 (5.9)	35 (26.5)	
	Anxiety	24 (17.6)	0 (0)	
	Trauma	8 (5.9)	6 (4.5)	
	Other	16 (11.8)	39 (29.5)	
	Total	136 (100)	132 (100)	
Last ES admission time	Within 1 week	4 (2.9)	0 (0)	<0.001
	Within 1 month	12 (8.8)	12 (9.1)	
	Within 3 month	60 (44.1)	28 (21.2)	
	Within 6 month	16 (11.8)	0 (0)	
	Within 1 year	24 (17.6)	34 (25.8)	
	More than 1 year	20 (14.7)	58 (43.9)	
	Total	136 (100)	132 (100)	
Result of last ES admission	Discharged	128 (94.1)	126 (95.5)	0.623
	Hospitalized	8 (5.9)	6 (4.5)	
	Total	136 (100)	132 (100)	
Satisfaction of last emergency visit	Yes	92 (67.6)	120 (90.9)	<0.001
	No	44 (32.4)	12 (9.1)	
	Total	136 (100)	132 (100)	

FMS: Fibromyalgia Syndrome, GIS: Gastrointestinal symptoms, ES: Emergency service

DISCUSSION

Chronic pain is a common reason for presentation to the emergency department (ED) and emergency physicians deal with acute pain generously, using the wide range of therapeutic options at their disposal [12,13].

Baker et al reported that emergency physicians need to differentiate chronic pain breakthroughs from acute intermittent pain and should recognize those at risk of chronic pain, forestall the syndrome's beginnings, and rationally exclude intercurrent illness. They suggested that a better understanding of chronic pain, and knowledge of current management practices may reduce clinician angst, lead to more consistent, less prejudicial interventions for patients presenting with chronic pain syndromes to emergency departments [14].

Fibromyalgia patients often represent themselves to emergency services for pain management and not for diagnosis [15]. Lack of literature of these patients' emergency admissions causes emergency physicians intervention to these patients.

Our FMS group was constituted of 124 (91.2%) females, 12 males (8.8%) as known in literature [4,5]. All males had a job and most of the females were not working and they were all housewives. Similar to Kirmayer's study [9] frequency of an outpatient clinic admission and frequency of emergency service admissions of groups were significantly different. Last emergency service admission complaints, last emergency service admission time, satisfaction of last emergency visits of the groups were different. Fibromyalgia patients visited a doctor and emergency service much more than other group.

Number of persons at home is positively correlated with frequency of emergency visit and frequency of outpatient clinic admission. These results showed that sociodemographic status has an effect on hospital admissions.

Frequency of emergency service admission and frequency of outpatient clinic admission were positively correlated. Satisfaction of last emergency visit ratio was lower in FMS group. This made us think the FMS patients found the doctor's evaluation insufficient or they think that they are not being taken seriously. Ducharme and McLoad reported that physicians may feel

a sense of anger and helplessness when confronted with chronic unexplained pain [13,16].

Most of our FMS group (38.2%) last emergency admission complaint was musculoskeletal complaint. In a retrospective study, Davidson et al studied in 204 FMS patients who admitted to emergency department with musculoskeletal pain. They investigated the rate of occurrence of fibromyalgia among patients assessed for pain management in a community hospital ED. During 21-month period, 5% of musculoskeletal pain patients had been diagnosed with fibromyalgia. In their study of the 204 patients, 22 had musculoskeletal chest pain for which cardiac pathology was ruled out. Thirteen patients presented with myositis as a result of a motor vehicular accident or a slip-and-fall accident; 40 patients had musculoskeletal pains or myositis [15].

Most of patients in the study group were nonworking people, and this situation makes more difficult to discuss the effect of having a job and active working on fibromyalgia.

In conclusion, sociodemographic properties of fibromyalgia patients play an important role in FMS patients' emergency service admissions and their satisfaction. Detailed evaluation of fibromyalgia patients' symptoms and sociodemographic properties and appropriate treatment of these patients may be beneficial for decreasing their emergency service admission rates.

Conflict of Interest: All authors declare that they have no conflict of interest.

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