Acta Medica Alanya

RESEARCH ARTICLE

ARAŞTIRMA

Acta Medica Alanya 2017

Cilt : 1 Sayı : 1

Etiological differences in dialysis patients, And addiction level and social tendencies of patients pursuant to smoking

Diyaliz hastalarında etiyolojik farklılıklar ve sigara içiciliği dikkate alınarak Hastaların bağımlılık düzeyi ve sosyal eğilimleri

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ABSTRACT

Aim: Within this study, we aim to research whether there is a relation between smoking addiction of dialysis patients and their social tendencies.

Method: 106 patients, who were being treated in Ankara Training and Research Hospital Nephrology Clinic, were included in the study. Cases included in the study were evaluated in terms of age, gender, educational background, settlement, Financial situation, smoking habits and social tendencies.

Results: It is seen that gender, income level, Social tendency and drug avoidance scores of Fatih Social Tendencies Scales are efficient over smoking addiction.

Conclusion: In our study, we have put forward smoking condition and its risks for dialysis patients.

Keywords: Dialysis, Smoking Addiction, Social Tendency

ÖZET

Amaç: Diyaliz tedavisi gören kişilerin sigara bağımlılığı ile sosyal eğilimleri arasında bir ilişki olup olmadığını araştırmayı amaçladık.

Yöntem: Çalışmaya Ankara Eğitim ve Araştırma Hastanesi Nefroloji kliniğinde tedavi görmekte olan 106 hasta alındı. Çalışmaya alınan olgular yaş, cinsiyet, eğitim durumu, yerleşim yeri, ekonomik durum, sigara alışkanlıkları ve sosyal eğilimleri açısından değerlendirildi.

Bulgular: Sigara bağımlılığı üzerinde cinsiyet, gelir durumu, Fatih Sosyal Eğilimler Ölçeğinin, sosyal uyum ve maddeden kaçınma skorlarının etkili olduğu görüldü.

Sonuç: Çalışmamızda diyaliz hastalarında sigara içme durumu ve riskleri ortaya konmuştur.

Anahtar kelimeler: Diyaliz, Sigara Bağımlılığı, Sosyal Eğilim

Geliş Tarihi: 17.11.2016/ Kabul Tarihi: 08.12.2016 / Yayınlanma Tarihi: 23.04.2017

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Smoking and its addiction are the main reasons of preventive diseases, which may cause virulent diseases in developed and developing countries and reduce lifespan by nearly 10 – 15 years. While smoking is the cause for many diseases, it triples early death rate as well [1]. Each year, around 5 million people in the world die because of smoking. Majority of these deaths happen in underdeveloped and developing countries. According to some of the researches done on this subject, when the calendar shows the year 2030, if tendencies towards smoking continue, the annual expected death number shall reach to 8 million. In case sufficient measures are not taken, it is predicted that nearly 1 billion people will die untimely and 80% of these will happen in under-developed and developing countries [2-3]. According to 2008 data of global adult tobacco re-search, 31% of the people in our country use tobacco, however this rate dropped to 27.1% in 2012 (14,8 million adults). Even though smoking rate shows decrease in our country, it is still roaming around high rates [4].

Chronic renal failure (CRF), which is one of the chronic diseases, is the chronical and pro-gressive failure of liquid-solid rate adjusting and metabolic-endocrine functions of the kidney as a result of regression in renal function due to progressive nephron loss and decline in glomerular and filtration value [5-6]. For this reason, cigarette has importance in CRF patients just like in many diseases. While HD extends lifespan in CRF patients, especially patients coming to hemodialysis live depending on machine and hospital in certain days of the week. It may cause reduction of physical activities in HD patients, along with workforce and economic losses resulting from treat-ment programs. Besides this, a vital organ's loss of function causes a patient's future plans to lose importance, along with physical and psychosocial problems in addition to drug usage and deterio-ration of life quality.

We've targeted to research whether there is a relation between smoking addiction and smoking level of patients having an important disease like CRF and getting dialysis treatment and their social tendencies. Also, we wanted to research smoking rate in patients getting dialysis treatment and draw attention to the importance of giving smoking cessation with future trainings held in dialysis units and dialysis centers.

PATİENTS AND METHOD

This study is an observational and analytic study. A total of 106 patients, 55 men and 51 women, who were being treated in dialysis unit of Ankara Training and Research Hospital and accepted to answer the survey, were included in the research. Ethics Committee approval was taken from the ethics committee of the hospital for the research. Approval was taken from patients, who were included in our research and accepted to fill our survey, with participant approval form.

In our survey, 27 questions examining socio-demographic features, attitude towards cigarette, opinions about the policies applied for cigarette by Ministry of Health and smoking condition were asked while filling Fagerstrom Test for Nicotine Dependency, which measures smoking addiction, during face-to-face talks. Meanwhile, Fatih Social Tendency Scale consisting of 22 questions was filled by participants themselves.

Interview form: In interview form, there were socio-demographic variables such as age, gender, marital status, educational background, area of residence, monthly income, social security, num-ber of people in the family, etc. Determinant information related to disease were present as opin-ions towards bans put forward by health policy as dialysis type, dialysis duration, smoking condi-tion, age to start smoking, reason for smoking, reason for starting smoking, etc.

Fagerstrom Test for Nicotine Dependency: This test consists of 6 questions, a point between 0 – 3 is given according to responses given to questions. At end of the test, 0 – 2 points is graded as very low for dependency, while 3-4 points is low, 5 points is medium, 6-7 points is high and 8-10 points is very high.

Social tendency scale: Social tendency scale has a total of 22 questions, 9 of them being nega-tive. Answers were prepared for each question like 'totally disagree (1), disagree (2), not sure (3), slightly agree (4) and totally agree (5)' and at least 1 point and maximum 5 point is given for each answer in order to collect data. Collected data is evaluated under the topics like Social Adapta-tion, Drug Avoidance, Violence Avoidance, Social Status, Family Status, Economic Satisfaction, Targets and Ideals.

Collected data is evaluated with SPSS 16.0 program.

RESULTS

When smoking condition of the working group is examined, it can be seen that 11.7% of women and 52.7% of men smoke cigarette. Other socio-demographic qualities of the participants are present with in Table 1.

Table 1: General socio-demographic features

Socio-demographic	Values	Number	Percent
Marital status	Married	71	67
	Single	17	16
	Other	18	17
Profession	Housewife	45	42.5
	Farmer	6	5.7
	Artisan	31	29.2
	Civil servant	12	11.3
	Student	3	2.8
	N/a	9	8.5
Social security	Yes	81	76.4
	No	25	23.6
Educational Background	Illiterate	20	18.9
	Literate	22	20.8
	Elementary-middle	35	33
	High school	17	16
	University	12	11.3
Area of residence	Rural	19	17.9
	Urban	87	82.1
Reading	Yes	40	37.7
	No	66	62.3
Does he/she smoke	Never	41	38.7
	Quit	30	28.3
	Sometimes	8	7.5
	Regularly	27	25.5

Variables related with the disease and disease information were given in Table 2. 66% of the patients get hemodialysis treatment while 34% get peritoneum dialysis treatment. When their treatment durations are examined, average treatment duration is 4.5 years and 59.4% of the pa-tients stated that they adapt to warnings and recommendations made by treatment staff (doctor, nurse, dietitian, social service expert, etc.). 19.8% of the patients said that they didn't have sufficiently knowledge related to their disease. There were additional chronical diseases like diabetes mellitus, hypertension, cardiovascular in 70.8% of the CRF patients included in the research.

Detailed information related with smoking condition of the patients were given in Table 3.

73.8% of the patients stated that they tried to quit smoking in some part of their lives and almost none of them got or was able to get support for quitting smoking. Other patients stated that the only support they got was the nicotine gum they purchased by themselves. They didn't get train-ing for smoking cessation. It is observed that 65.7% of active smokers wish to quit smoking and the reason for many of them to quit is the wish for being a healthier individual.

Table 2: Demographic features related with the disease

		Number	Percent
Treatment Type	Hemodialysis	70	66
	Peritoneum dialysis	36	34
		/4.5	
Treatment duration Adaption to the warnings of treatment staff	Yes	63	59.4
	No	4	3.8
	Sometimes	39	36.8
Have knowledge related with the disease and treatment?	Yes	85	80.2
	No	21	19.8
Additional disease apart from CRF	Yes	75	70.8
	No	31	29.2

It is seen that majority of the patients give support to current arrangements and try to adapt to them. The support given to bans related to smoking by the patients and their awareness towards bans also attracted attention.

Table 3: Information related with smoking

		Number	Percent
Does he/she smoke?	Never	41	38.7
	Sometimes	8	7.5
	Regular	27	25.5
	Quit	30	28.3
Reason for starting smoking	Curiosity	11	16.9
	Imitation	19	29.2
	Environmental Effect	12	18.4
	Stress	6	9.2
	Friend	17	26.1
Trying to quit smoking	Yes	48	73.8
	No	17	26.2
Getting support while quitting	Yes	3	6.2
	No	45	93.8
Quit smoking then start again	Yes	29	44.6
	No	36	55.4
Reason for smoking now	Habit	16	45.7
	Enjoying	6	17.1
	Stress	12	34.2
	Other	1	2.8
Thinking of quitting smoking	Yes	23	65.7
	No	12	34.3
Dependency according to Fagerstrom	Very low	6	17.1
	Low	5	14.2
	Medium	6	17.1
	High	12	34.2
	Very high	6	17.4

Attitude of the patients in working group towards cur-

rent cigarette policy is given in Table 4. It is seen that majority of the patients support these policies.

Table 4: Cigarette attitude policies

		Number	Percent
Harmful to health warning should be present on cigarette packs	Yes	104	98.1
	No	2	1.9
Cigarette advertisements should be banned	Yes	103	97.2
	No	3	2.8
Cigarette sale to children under 18 years old should be banned	Yes	105	99.1
	No	1	0.9
Smoking should be banned in public spaces	Yes	101	95.3
	No	5	4.7
Cigarette prices should be extremely increased	Yes	85	80.2
	No	21	19.8

In Table 5, it is examined whether there is a significant relation between social tendencies, smoking condition of CRF patients and their socio-demographic qualities. It is seen that gender and average monthly income affect smoking condition of patients along with "Social Adaptation" and "Drug Avoidance" tendencies. According to this, it is also seen that gender, average monthly income, drug avoidance and social adaptation have positive effects on smoking condition.

While touching upon the factors affecting smoking condition in hemodialysis patients and social tendencies, we see the effect of gender on smoking condition. It is seen that men are in-clined to smoking as 52.7% of men smoke cigarette, while 11.8% of women smoke ($p<0.001$).

Other element affecting smoking condition is the average income level of the person. Smok-ing condition increases proportionally with the income level of person. It is seen that the spending made by a patient with high average income level is higher ($p=0.017$).

It is observed in social tendency survey of patients that as social adaptation and drug avoidance value of patients increase, their smoking rate decrease. This is one of the important points of the research drawing attention ($p=NS$, $p<0.001$).

DISCUSSION

Smoking rate of male dialysis patients in our working group was significantly higher than female patients. It was observed in previous studies that smoking rate of men in Turkish society was 41.4% and the rate of women was 13.1%. This condition showed accordance with the gen-eral situation of Turkish society [4]. According to 2004 data, it is known that there are 1,800,000 CRF patients in the entire world. According to the research conducted by Turkish Society of Neph-rology in Turkey, in 2011, the number of CRF patients getting renal replacement treatment was 60,443. Also, total number of adult and child patients getting hemodialysis (HD) treatment for HD and peritoneum dialysis (PD), the most important option of renal replacement treatment was 49,404 while the number of those having regular PD treatment was 5,105 [7]. As smoking is harm-ful to many organs, it is also dangerous for kidneys as well. When it's effect on renal function is observed, it can be seen that nicotine in cigarette is an harmful agent for kidney and there is a relation between nephropathy and nephrotoxicity [8]. Nicotine changes normal sympathetic nervous system activity and causes volume development in nephron that causes reduced natriuresis and diuresis [9].Cardiovascular diseases are the most important cause of death in dialysis pa-tients, while atherosclerotic heart disease constitutes the biggest group. Cigarette is one of the most important causes of factors that create atherosclerotic risk in HD patients [10-11].

Total adaption of patients in our working group to the treatment was 59.4%. As the rate of those not showing full adaptation was 40.6%, it pointed out that they needed approach. The rate of patients with full knowledge of their disease was 80.2%. Remaining 19.8% was the part that needed to be informed about their disease. We believe that one of the reasons for low adaptation rate is the lack of information.

When we examine smoking condition, it came to our attention that 65.7% of active smok-ers wanted to quit smoking. This situation points out the need for support and guidance service to be given on this subject to these groups. Hence, our working group stated that they give high level of support to policies like smoking limitation and ban. When we analyzed the things that are efficient on smoking condition, we observed that gender factor is primarily efficient. As we empha-sized in the beginning, general quality of the society was also towards this direction. Also, high economic level of people increased smoking tendency as well. For this reason, it becomes appar-ent that the services to be given on this subject should be made by paying more attention to male population and people with high income level.

Another point drawing attention in our study is the relation between "Fatih-Social Tenden-cy Scale", which was developed before, "Social adaptation" and "Drug avoidance" factors and smoking. With low factor sco-

res, smoking risk was increasing. This result makes us think that men-tioned scale would be beneficial in future risk identification, support, improvement and guidance studies on this subject.

As a result, in the study we attracted attention to smoking condition and tendency, which have importance with its effect especially on renal function and affecting many systems in CRF patients getting hemodialysis treatment. For this reason, it is important to find smoking patients among HD treatment and provide help and support for them to quit smoking and also to plan ac-tivities (planning educational activities in units where audiovisual tools are used, guidance ser-vices, etc.) in order to prevent negative effects that may cause smoking problems in HD units. This study is conducted in order to serve as a model to other studies for explaining the harmful effects of smoking to patients getting treatment in HD units and hospitals and special dialysis centers, increasing awareness about smoking and reducing the tendency towards smoking.

Conclusion: In our study, we've put forward smoking condition and its risks in dialysis pa-tients. Smoking cigarette causes destruction even to healthy people, while the destruction that may be caused on dialysis patient is very clear. Leading risks that we identified are male gender, high income level, along with low social adaptation and drug avoidance scores of Fatih social tendencies scale. Our findings may shed light on future studies on this subject.

Declaration of conflicting interests: The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

Funding: The authors received no financial support for the research and/or authorship of this article.

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How to cite this article/Bu makaleye atıf için:
Çetin A, Özdemir MB, Arslan İ, Tekin O, Duranay M. [Etiological differences in dialysis patients and dependence level and social tendencies of patients pursuant to smoking.] Turkish. Acta Med. Alanya 2017;1(1):15-19.