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Original Article

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Change in Smoking Habits and Contribution of Physicians to Smoking Cessation in Patients with Non-muscle-Invasive Bladder Cancer

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ABSTRACT

To assess the impact of a diagnosis of bladder cancer on smoking behavior and to analyze the role of the physician in smoking cessation. Nonmuscle-invasive bladder cancer patients completed a phone survey of their smoking habits. They were asked about smoking behavior before and after the diagnosis of cancer and whether they had been informed by their physician about the relation between smoking and bladder cancer. Two hundred-twelve patients responded to the survey. The mean age was 60.03±6.36 years. Ninety-three of the 135 current smokers (68.9%) were advised to quit smoking, whereas nine of 20 nonsmokers (45%) were not commented about the future risks of smoking. The results showed that 13% of the current smokers and 35% of the current nonsmokers were not warned about the relation of bladder cancer with smoking. Statistical significance was not seen in terms of sex, disease stage, and tumor grade at diagnosis. The relation between smoking and bladder cancer has been well established. However, some patients are not informed to quit smoking by their physicians.

Key words: *Bladder cancer, smoking, brifing, smoking cessation*

Nonmuscle-invaziv Mesane Kanseri Tanısı Alan Hastalarda Sigara İçme Alışkanlıklarındaki Değişim ve Sigara Bırakmada Hekimlerin Katkısı

ÖZET

Sigara içme alışkanlığına mesane kanseri tanısının etkisini değerlendirmek ve sigara bırakmada hekimlerin rolünü analiz etmek. Nonmuscle-invaziv mesane kanserli hastalarda sigara içme alışkanlıklarını sorgulayan telefon anketi yapıldı. Hastalara kanser tanısı öncesi ve sonrası sigara içme durumu ve kendilerinin sigara ve mesane kanseri arasındaki ilişki konusunda hekim tarafından bilgilendirilip bilgilendirilmediği soruldu. Ankete iki yüz oniki hasta yanıt verdi. Yaş ortalaması 60.03±6.36 yıl idi. halen sigara içen 135 hastanın 93'üne (% 68.9) sigarayı bırakması önerildiği ama sigara içmeyen 20 hastanın 9'unun (% 45) sigaranın muhtemel riskleri konusunda bilgilendirilmediği görüldü. Tanı sonrası halen sigara içenlerin %13'ü ve sigara içmeyenlerin %35'inin sigara içme ile mesane kanseri arasında ilişki hakkında uyarılmadığı gösterildi. cinsiyet, hastalığın evresi ve tanı sırasında tümör derecesi açısından İstatistiksel anlamlılık görülmedi. Sigara içme ve mesane kanseri arasındaki ilişki iyi bilinmektedir. Ancak, bazı hastalar doktorlar tarafından sigarayı bırakma konusunda bilgilendirilmemektedir.

Anahtar kelimeler: *Mesane kanseri, sigara içme, bilgilendirme, sigara bırakma*

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INTRODUCTION

Urothelial carcinoma is the most frequent malignant tumor of the urothelial tract and commonly seen in the bladder. Around 75% of bladder tumors are noninvasive and 70% of these nonmuscle-invasive bladder tumors recur (1). The etiologic relationship between smoking and bladder cancer has been demonstrated, with cigarette smoking shown to be an initiator and a promoter of bladder carcinogenesis (2). However, the effects of the disease diagnosis and the doctor's warning at follow-up on smoking habits are not known.

In this study, we aimed to investigate the change of attitudes in patients toward smoking before and after the diagnosis of bladder cancer. The role of the physicians in convincing the patients to quit smoking was also evaluated.

MATERIALS AND METHODS

In this multicentric study, 318 patients with nonmuscle-invasive bladder cancer with a long-term follow-up were enrolled. The age, sex, and pathological stage and grade of the tumors, as well as the smoking rates, were recorded retrospectively. The patients were interviewed by phone about their smoking habits. They were questioned about their smoking behavior before and after the diagnosis and whether they were informed by their physician about the relation between smoking and bladder cancer.

Smoking habits before the diagnosis, changes in the habits of the smoking group after the diagnosis, and the role of the physician in initiating this change were investigated.

Student's t-tests and chi-square tests were used for statistical analyses.

RESULTS

318 patient files were examined, and 212 (186 males and 26 females) responded to the survey. The mean age of the patients was 60.03±6.36 (18–81) years. The demographic characteristics of the smokers before and after the diagnosis are shown in Table 1. Statistical significance was not seen in terms of sex, disease stage, and tumor grade at diagnosis.

Smoking status of patients at diagnosis and rate of smoking cessation at follow-up after the physician's recommendation to quit are shown in Table 2. A total of 93 of the 135 current smokers (68.9%) were advised to quit smoking, whereas nine of 20 nonsmokers (45%) were not advised about the future risks of smoking. The results show that 13% of the current smokers and 35% of the current nonsmokers were not warned about the relation of bladder cancer with smoking.

DISCUSSION

Several studies have found a relation between bladder cancer and smoking, with a four-fold increase in bladder cancer among smokers (3). In addition, smoking has been found to increase treatment-related complications; morbidity and mortality, and recurrence rates. The risk of secondary cancer is also higher among smokers (4). Therefore, the smoking status of patients at diagnosis and follow-up is important.

We analyzed different aspects of the relation of smoking with bladder cancer. As per the earlier text, the study analyzed smoking behavior before and after the diagnosis of cancer and whether they had been informed by their physician about the relation between smoking and bladder cancer. Smoking cessation has been shown to be

Table 1. *Demographic characteristics of the bladder cancer patients before and after diagnosis.*

		Ex-smoker	*Current smoker*	*Non smoker n (%)*	*p value*
Sex	*Male*	*94 (%64.4)*	*52 (35.6)*	*40 (21.5)*	*0.124*
	Female	*8 (%88.8)*	*1 (11.1)*	*17 (65.4)*	
Stage	*Ta*	*77 (%66.9)*	*38 (33.1)*	*45 (78.9)*	*0.372*
	T1	*25 (%62.5)*	*15 (37.5)*	*12 (21.1)*	
Grade	*G1*	*17 (%80.9)*	*4 (19.1)*	*19 (47.5)*	*0.179*
	G2	*66 (%64)*	*37 (36)*	*31 (23.1)*	
	G3	*19 (%61.3)*	*12 (%38.7)*	*7 (18.4)*	

Table 2. *Smoking status of patients at diagnosis and rate of smoking cessation at follow-up after the physician's recommendation to quit.*

	Ex-smoker	Current smoker	p value	Non smoker	p value
Advised n (%)	93 (68.9)	42 (31.1)	0.021	37 (65)	0.557
Not advised n (%)	9 (45)	11 (55)	0.64	20 (35)	0.418
Total	102	53	-	57	-

associated with a decreased risk of bladder cancer development (5, 6). Chen et al. reported that there was a lower risk of the recurrence of bladder cancer among patients who quit smoking one year before the diagnosis of bladder cancer compared with smokers (2). Both studies concluded that smoking cessation results in a lower recurrence rate. Hartge et al. showed a relation with the number of cigarettes smoked and bladder cancer and demonstrated a decrease of 30–60% in the incidence of the disease after smoking cessation (7).

Cigarette smoking has been shown to be an initiator and a promoter of tumorigenesis due to several carcinogenic metabolites (8). Research has shown that smoking cessation decreases the development of bladder cancer and the recurrence of the disease. Some studies reported that the risk of bladder cancer development was the same between smokers and nonsmokers 20 years after smoking cessation (5, 9). Although the association between bladder cancer and smoking is well known among urologists, one study found that more than one-half of urologists did not advise their patients to quit smoking (10). In our study, we found that 18.8% of the patients had not been informed about the relation between smoking and bladder cancer.

One study found that the discussion about smoking between the physician and the patient increases rates of smoking cessation (11). However, another study showed that 45% of bladder cancer patients who were smokers when diagnosed continued smoking and that this figure increased in patients with early-stage disease (4). In the current study, 65.8% of the patients stopped smoking.

The limitations of our study are the small number of patients and the retrospective and multicentric design. Our findings should prompt further investigations (to determine why some urologists do not advise patients about smoking cessation and why, if they do, some patients pay no heed to the advice).

The relation between smoking and bladder cancer has been well established. In bladder cancer treatment, cessation of smoking is crucial. However, some patients are not informed to quit smoking by their physicians. Physicians should be aware that cessation of smoking is a vital part of the treatment, and they should advise their patients accordingly.

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