

## RESEARCH COMMUNICATION

# Prevalence of Cancer Pain in Outpatients Registered to a Cancer Therapy Center in Turkey

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### Abstract

**Introduction:** Although the World Health Organization (WHO) has stated that cancer pain can be controlled in 85-97% of cases with knowledge and technology available today, effective pain control is about 40%. This situation emphasizes the necessity of discussing cancer pain again. **Objective:** This descriptive study was conducted with the aim of determining prevalence, severity, region and frequency of cancer pain in patients registered to a cancer treatment center. **Materials and methods:** A total of 256 patients who were treated in the outpatient clinic of a cancer center in Istanbul in 2010 constituted the study population and 99 cancer patients who agreed to participate in the study and could be reached constituted study sample. The study was completed with 49 (49.5%) patients as 50 (50.5%) out of 99 patients who were reached did not report pain. **Results:** Of the patients with cancer pain, 30.6% (n=15) had colon/rectum cancer, 24.5% (n=12) had lung cancer and 51% (n=25) had metastasis. Pain was in lower extremities in 34.3% (n=35), 57.1% (n=28) had moderate pain, 24.5% (n=12) had severe pain and pain was constant in 28.6% (n=19). Additionally, 20.4% (n=10) were not receiving pain treatment. Usually opioids, nonsteroidal anti-inflammatory drugs (NSAIDs) and adjuvant analgesics were being used in combination for pain treatment. **Conclusion:** The fact that 20.4% (n=10) of 49 patients were not receiving pain treatment and half of the cancer patients under control are experiencing pain is bothersome and thought provoking.

**Keywords:** Cancer pain - prevalence - sites - non-treatment -Turkey

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### Introduction

Probability of experiencing pain is a more frightening condition following probability of not being able to be treated and death for many patients who were diagnosed as cancer and their families. This fear of cancer patients and families has much strong justifiability. Because the fact that of cancer patients 25% had pain at the time of diagnosis (Reevers 2008), 33% had curative pain, 59% had pain during cancer treatment, 64% had severe pain has been reported in different literature (de Rijke et al., 2006; Vanden Beuken et al., 2007; Yucel, 2011).

Although World Health Organization (WHO) has stated that (www.cancer-pain.org, access date 28.06.2010) cancer pain could be controlled in the ratio of 85-97% with knowledge and technology of today, effective pain control is about 40% (Komurcu, 2010). Less than half of the predicted pain control can be achieved. This condition puts forward the necessity of discussing cancer pain again.

The study was designed in descriptive type on the outpatients who were registered to a cancer therapy center. Questions to be answered were: 1)What is the prevalence of pain in cancer patients?; 2) How severe is the pain in

cancer patients?; 3) What are the pain site/sites in cancer patients?; 4) How frequent is the pain in cancer patients?

### Materials and Methods

#### *Study location and sample*

A total of 256 patients who were treated in the outpatient clinic of a cancer center in Istanbul in 2010 constituted study population and 99 cancer patients who accepted to participate in the study and could be reached constituted study sample. The study was completed with 49 (49.5%) as 50 (50.5%) did not have pain.

#### *Data Collection*

Data were obtained using a data collection form prepared by the researchers in the light of literature (Berry, 2001; Edwards et al., 2001; Eti-Aslan, 2006; 2010; Gecil, 2007; Dedeli and Karadeniz, 2009) between January-March 2010 after working permission and ethics committee approval were obtained. Informed consent forms were signed out by the patients who agreed to participate in the study after the purpose of the study had been declared. Their questions were answered when

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needed.

*Data Collection Tools*

Pain assessment form prepared by the researchers consisted of two parts concerning individual characteristics and pain and a total of 12 questions. The first part (individual characteristics) consisted of eight questions about age, gender, educational status, marital status, occupational status, medical diagnosis, treatments and presence of metastasis, location of metastasis if present. The second part (pain assessment) consisted of questions aiming to determine the location, severity, frequency of pain and expressions used by the patients to describe the pain.

*Testing Data Collection Form*

A pre-test was applied to 12 patients in order to determine feasibility of the prepared form. There were no lacking, unnecessary, delphic questions in the form. Thus pre-interviewed patients were also included in the study.

*Ethical Aspect of the Study*

In planning stage of the study, working permission was obtained from concerned hospital management and ethical approval was obtained from ethics committee of a university hospital. Informed consent was obtained from the patients who were included in the study after the aim, content and duration of the study had been declared. 'Autarchy' principle was complied by stating that participation was volunteer and 'Privacy and Securing Privacy' principle was complied by stating that individual information would be conserved.

*Data Analysis*

Data analysis was done using Statistical Package for the Social Sciences (SPSS) 13 package program. Frequency, percentage and Paired-Samples T test were used. Results were assessed in 95% confidence interval, at  $p < 0.05$  significance level.

**Results**

Pain was detected in 49 out of 99 patients who were treated in a cancer treatment center and pain prevalence was found to be 49.5%. In this section, data of 49 patients who had pain are given as tables below. Of the patients, 49% (n=24) were females, 49% (n=24) were graduates of elementary school, 6.1% (n=3) were young adults aged between 18-40 years, 69.4% (n=34) were adults aged between 41-64 years, 20.4% (n=10) were elderly aged between 65-74 years, 4.1% (n=2) were in advanced age, 83.7% (n=41) were married, 69.4% (n=34) were unoccupied.

Of the patients, 30.6% (n=15) had colon/rectum cancer, 24.5% (n=12) had lung/adenocarcinoma/pleural mesothelioma, 18.4% (n=9) had breast cancer, 10.2% (n=5) had ovarian/fallopian tube/uterus, 16.3% (n=8) had other cancers (leukaemia, lymphoma, pancreas cancer, malignant melanoma, brain, prostate cancer). There was metastasis in 51% (n=25) of the patients and the most common metastasis site was liver with a ratio of 50% (n=14).

**Table 1. Relationship between Individual Characteristics and Pain (N=49)**

Characteristics	n (%)	Significance*
Gender		t= 6.788 P=0.001
Female	24 (49.0)	
Male	25 (51.0)	
Educational status		t= 0.759 P=0.451
Elementary school	24 (49.0)	
Intermediate school	6 (12.2)	
High school	19 (38.8)	
Age		t=58.860 P=0.001
Adult (n=37)		
18-40	3 (6.1)	
41-64	34 (69.4)	
Total	37 (75.5)	
Old age (n=12)		
65-74	10 (24.1)	
75-84	2 (4.1)	
Total	12 (24.5)	
Marital Status		t=15.684 P=0.001
Married	41 (83.7)	
Single	8 (16.3)	
Medical Diagnosis		t=3.274 P=0.002
Colon cancer	15 (30.6)	
Lung cancer	12 (24.5)	
Breast cancer	9 (18.4)	
Uterus cancer	5 (10.2)	
Other cancers**	8 (16.3)	

\*Paired-Sample T Test; \*\*Leukaemia, lymphoma, pancreas, malignant melanoma, prostate, brain

Additionally, 20.4% (n=10) of 49 patients who had pain were not receiving pain treatment. Opioids, nonsteroidal anti-inflammatory drugs (NSAIDs) and adjuvant analgesics were being used in combination (79.6%, n=39) and opioids were being used in 58% (n=29), adjuvant analgesics were being used in 22% (n=11) and NSAIDs were being used in 20% (n=10).

It was determined that of 49 cancer patients who had pain defined 102 pain sites, pain was most common in lower extremities (34.3%, n=35), 57.1% (n=28) had moderate pain, 24.5% (n=12) had severe pain, 6.1% (n=3) had very severe pain; additionally, 28.6% (n=19) of the patients had constant pain, 71.4% (n=35) had intermittent pain.

While of 49 patients who had pain, 24.5% (n=12) described pain as intense, stinging, 20.4% (n=10) as too severe to take my breath away, 20.4% (n=10) as travelling, cramping, 10.2% (n=5) as insidious, gradually increasing, 24.5% (n=12) could not describe their pain.

Relationship between individual characteristics and pain is given in Table 1. In this context, gender was found to affect pain perception (t=6.78; p=0.001), while pain complaint was more frequent among males (51%; n=25), education level was found not to affect pain expression (t=0.759; p=0.451). When the other individual characteristics were analysed, pain complaint was determined to be more frequent among adults (t= 58.860; p=0.001), married (t=15.684; p=0.001), the ones diagnosed as colon cancer (t= 3.274; p=0.002).

While metastasis was detected in 51% (n=25) of the patients and pain expression changed depending on the presence of metastasis (t= 7.071 p= 0.001), the most common metastasis site was found to be liver (50.0%) however metastasis site was found not to affect pain complaint (t= 1.307; p= 0.197).

## Discussion

In recent studies about pain prevalence in cancer patients, cancer pain was reported as 24-60% despite active pain treatment (Van den Beuken-van Everdingen et al., 2007). Pain is a greater source of fear even more than the pain itself. The result of this study supported the fear of the patients and families. In this study conducted in a cancer center consisting an algology unit, that 49.5% of the patients had pain and 20.4% of the patients with pain were not receiving treatment for pain indicate that cancer pain is still a problem. Whereas the fact that none of the cancer patients should not experience pain is stated in literature (Onal, 2006; Ferrell et al., 2008; Orhan et al., 2008; Mair, 2009). Additionally, many cancer patients have a poor quality of life because of ineffective pain treatment. Patients indicated lower extremities as the most common pain site (34.3%). This was thought to be related to cancer and treatment related fatigue and immobility.

In the systematic review of Van den Beuken-van Everdingen et al. (2007) about pain prevalence in cancer patients, more than one third of the patients were reported to express their pain as moderate and severe. In our study, 57.1% (n=28) of the patients described their pain as moderate and intermittent. This result made us think that in description of pain that is a subjective experience, patients' pain being intermittent enabled to tolerate pain (Table 1). In literature, vast majority of patients stated that they could tolerate mild pain however moderate and severe pain required attention (Van den Beuken-Van Everdingen MHJ et al, 2007).

Pain expression may be related to the condition causing pain (Eti Aslan, 2006; Eti Aslan, 2010). In this context, patients tried to describe effect type and severity of pain as 'intense and stingy' (24.5%) and 'enough to take my breath away' (20.4%).

Pain is an experience perceived by everyone however expression of it varies individually (Eti Aslan, 2010). In this study, males' express pain more than females is considered to be able to be related with medical diagnosis. Colon and lung cancers' being the most frequent cancer type in the sample is parallel with this result. These results are consistent with literature that colon and lung cancer are more frequent in males, males' complaining from pain less in eastern communities is not consistent with literature (Cecil, 2007; Edwards et al, 2001; Eti Aslan, 2006 ; Eti Aslan, 2010).

In literature, basic principle in pain assessment believes pain complaint of the patient. Nevertheless comprehensive pain assessment is essential and the aim of this assessment is pain control (Erdine, 2002).

A significant difference was not detected between pain expression according to educational status of the patients ( $t=6.788$ ,  $p>0.05$ ). This result made us think that an individual at any educational level could express cancer pain.

Literature about the relationship between pain prevalence and age is limited and controversial. In the study of Van den Beuken-van Everdingen et al. (2007), a relationship could not be found between age and cancer pain. In our study, different from this study, adults were

detected to perceive pain more compared to elderly and the difference was statistically significant.

Pain is seen 60-80% in stomach, lung, pancreas, breast and genitourinary cancers (Yucel, 2011). In our study, it was seen that 51% of the patients had metastasis and these patients expressed more pain however metastasis site was not effective on pain expression. Pain that is a negative experience for patients is seen in the ratio of 75-90% with disease progression (Yucel, 2011).

In conclusion, cancer pain is still among important problems in our country as in the world. It is recommended that pain expression of the individual should be taken into consideration in patient care practice, psychologic, social, cultural and spiritual aspects of the individual should be taken into consideration, pain assessment should be done constantly and comprehensively, pain management should be done with a holistic approach.

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