

Occurrence of pain in cancer patients in palliative care

Ocorrência da dor nos pacientes oncológicos em cuidado paliativo

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Keywords

Pain; Palliative care; Nursing research; Nursing care; Oncology nursing; Quality of life

Descritores

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Abstract

Objective: Evaluating the occurrence of pain and quality of life among cancer patients in palliative care.

Methods: Cross-sectional study including 56 cancer patients in palliative care evaluated for reported pain (verbal, numerical and visual scales), analgesic treatment (adjuvants, weak opioids, strong opioids or non-opioids) and quality of life (WHOQOL-BREF).

Results: Most patients (n = 53, 94.6%) used some type of analgesic drug and just over half (n = 30, 53.7%) reported pain. Considering the quality of life as consequence of pain intensity (mild, moderate or intense), treated with painkillers or not, it was observed that intense pain - the most common - had the worst score for the Physical domain. On the other hand, the Environment domain showed the highest score (77.4), regardless of reported pain or analgesic use.

Conclusion: The results showed that the occurrence of pain affects the quality of life and compromises the daily life activities.

Resumo

Objetivo: Avaliar a ocorrência da dor e qualidade de vida entre pacientes oncológicos em cuidado paliativo.

Métodos: Estudo transversal, incluindo 56 pacientes com câncer em tratamento paliativo, avaliados quanto a dor referida (escalas verbal, numérica e visual), uso de analgésicos (adjuvantes, opióides fracos, fortes ou não opióides) e qualidade de vida (WHOQOL *brief*).

Resultados: A maioria dos pacientes (n=53, 94,6%) usava algum tipo de analgésico e pouco mais da metade (n=30, 53,7%) referia dor. Considerando a qualidade de vida como consequência da intensidade de dor (leve, moderada ou intensa) tratada ou não com analgésicos, observou-se que a dor intensa - a mais frequente - obteve pior escore para o domínio físico. Por outro lado, o meio ambiente apresentou maior escore (77,4), independente da dor referida ou uso de analgésicos.

Conclusão: Os resultados mostraram a ocorrência de dor, afetando a qualidade de vida e comprometendo as atividades diárias de vida.

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Introduction

The increase in life expectancy and control of infectious diseases have been responsible for the change in the scenario of the causes of morbidity and mortality worldwide. In this sense, the chronic diseases stand out, in particular the cancer.⁽¹⁾

In Brazil, one of the main problems involved in the diagnosis of cancer is related to tumor staging. Most cases are diagnosed at an advanced stage, conferring a worse prognosis, shorter survival and increased risk of recurrence and metastasis.⁽²⁾ Metastases are responsible for most of incurable cases and are associated with various clinical manifestations, such as pain.⁽³⁾

The pain, which is the fifth vital sign, significantly affects the quality of life of patients and requires appropriate prevention and treatment, primarily for those already in Palliative Care.⁽³⁾ It is shown that the adoption of effective therapeutic practices can reduce between 80% and 90% of cases of cancer pain.⁽⁴⁾ In this sense, for the standardization of pharmacological analgesia for cancer pain, the World Health Organization has developed the Analgesic Ladder in three steps, recommending the use of drugs in accordance with the intensity of pain.⁽⁴⁾ In recent studies, a fourth step was suggested for including minimally invasive procedures, in addition to classical analgesics, in order to produce effective analgesia in cases when pain is difficult to control.⁽⁵⁾

In spite of this, data estimate that 62% to 90% of Brazilian patients with cancer still have some kind of pain.⁽⁵⁾ Among others, this condition suggests that current analgesic practices are not effective enough to control cancer pain. It is important to highlight that the cessation of pain promotes the reduction of patients' stress and increases their quality of life, reflecting positively on the relations with their families, caregivers and health professionals.

The aim of this study was to evaluate the occurrence of pain and quality of life among cancer patients in palliative care.

Methods

This is a cross-sectional study carried out with adult patients with cancer of different etiologies, in home care

service and visited by the multidisciplinary team of the Palliative Care Program of the Hospital do Câncer in the city of Uberlândia, southeast region of Brazil, in the period between January and August 2013.

A total of 56 patients who were receiving analgesics for treatment of pain were included, according to the sample size calculation performed with the Epi Info™ 7.1.3, 95% confidence interval and 5% of alpha type II error. It was a convenience sample, selected through non-probability sampling and consecutively during the period of study, until completing the planned number of subjects.

Data were collected during home care, using three instruments applied to each participant in a single meeting: (1) form for collecting personal data (age and gender) and clinical data (tumor site, cancer treatment and painkiller in the last two weeks prior to collection), (2) pain assessment scales (numerical, verbal and analog) and (3) version of the WHO-QOL-BREF questionnaire validated for the Portuguese language and made available by the authors.

The WHOQOL-BREF is an abbreviated version of the WHOQOL-100, with satisfactory psychometric characteristics for evaluating the quality of life perceived by a young adult. Its structure consists of 26 questions separately comprising the four following domains: Physical (assessment of pain, discomfort, fatigue, sleep, mobility, dependence on medication and ability to work); Psychological (positive and negative feelings, thinking, learning, self-esteem, body image, spirituality); Social relationships (personal relationships, social support and sexual activity); and Environment (physical safety, physical environment, financial resources, health care, information, recreation and leisure and transport). Each question has a Likert scale, with ranking alternatives that range from one to five. The points earned for each domain were transformed into a scale from zero to one hundred, with the higher scores representing the better perceived quality of life.⁽⁶⁾

Data were analyzed with the *GraphPad Prism*®, version 5. Variables were subjected to univariate analysis, verifying frequencies and calculation of measures of central tendency (mean and median) and dispersion (standard deviation – SD and min-

imum and maximum values). The level of significance was set at $p < 0.05$.

The development of study followed the national and international standards of ethics in research involving human beings.

Results

The study was carried out with 56 patients aged 65.77 ± 14.69 years on average (\pm SD), ranging between 28 and 92 years. Slightly more than half were of female gender ($n=31$, 55.4%) and the most frequent primary tumor site was the gastrointestinal tract ($n=20$, 30.7%). Most patients ($n=43$, 76.8%) were not doing chemotherapy, radiotherapy nor had recently had a surgery, but were using some analgesic drug ($n=53$, 94.6%), which is an average of 2.2 ± 1.2 painkillers per patient (\pm SD). Regarding the perception of pain, 30 patients (53.7%) reported some level of pain, and the most frequent was the high intensity pain ($n=11$, 36.7%), followed by the mild pain ($n=10$, 33.3%) and the moderate pain ($n=9$, 30%) (Table 1).

Table 2 shows that only three patients (5.4%) did not use analgesic drugs, although one of them (33.3%) has complained of mild pain. Non-opioid drugs and adjuvants were used by the majority of patients ($n=33$, 58.9% and $n=32$, 57.1%, respectively). Among those using non-opioid drugs, approximately half ($n=17$, 51.5%) was pain free and the remaining patients ($n=16$, 48.5%) had either mild pain ($n=5$, 15.2%), moderate pain ($n=6$, 18.2%) or intense pain ($n=5$, 15.2%). For patients using adjuvants, pain was reported by the majority ($n=22$, 68.7%) and intense pain was observed in 31.1% of cases. Opioids were used by the majority of patients ($n=37$, 69.8%) who were using some kind of painkiller ($n=53$). Considering the pain free group, weak opioids were responsible for greater control of pain (54.5%). On the other hand, in the group using stronger opioids ($n=26$, 49%) was observed a worse control of pain (pain free: $n=5$, 19.2%), and moderate and intense pain was reported by 15 (57.7%) patients.

The results also demonstrate that all patients with moderate or intense pain used some kind of painkiller.

Table 1. Characteristics of patients ($n=56$) regarding personal data and information of disease, occurrence of pain and analgesic use

Variables	n(%)
Age (years)	
Mean \pm DP	65.77 \pm 14.69
Median (min – max)	65.5 (28 – 92)
Gender n(%)	
Female	31(55.4)
Male	25(44.6)
Primary tumor site	
Gastrointestinal tract	20(30.7)
Respiratory tract	8(14.3)
Genitourinary tract	8(14.3)
Head and neck	6(10.7)
Gynecological	5(8.9)
Breast	4(7.1)
Others	5(8.9)
Cancer treatment*	
None	43(76.8)
Chemotherapy	9(16.1)
Radiotherapy	4(7.1)
Analgesic drugs*	
Yes	53(94.6)
No	3(5.4)
Analgesic drugs per patient	
Mean \pm SD	2.2 \pm 1.2
Pain*	
No	26(46.4)
Yes	30(53.6)
Intensity of pain**	
Mild	10(33.3)
Moderate	9(30.0)
Intense	11(36.7)

*occurrence in the last two weeks preceding the interview; **refers only to patients with pain complaints ($n=30$)

Table 2. Analgesic drugs and intensity of reported pain

Analgesics	n	Pain free n(%)	Mild n(%)	Moderate n(%)	Intense n(%)
None	3	2(66.7)	1(33.3)	0(0)	0(0)
Non-opioids	33*	17(51.5)	5(15.2)	6(18.2)	5(15.2)
Adjuvants	32**	10(31.3)	7(21.9)	5(15.6)	10(31.3)
Weak opioids	11***	6(54.5)	2(18.2)	0(0)	3(27.3)
Strong opioids	26****	5(19.2)	6(23.1)	7(26.9)	8(30.8)

*Dexamethasone, Lyrica®, Amitriptyline, Gabapentin, Sertraline, Phenytoin, Clonazepam; Diazepam, Razapina, Alprazolam®, Fluoxetine, Lorazepam®, Phenobarbital; **Dipyron®, Paracetamol, Buscopan®, Novalgine®, Ibuprofen®, Dorflex®, Toragesic®; ***Tylex® (Codein + Paracetamol), Codein, Tramadol; ****Dimorf®, Methadone

Regarding quality of life, it was observed that none of the participants failed to answer the questions of the WHOQOL-BREF. In table 3 it is possible to descriptively analyze the complete results for each domain.

It was found that among all participants, the Environment domain had the best aspect of QOL (quality of life). With a 77.4 score are

patients with complaints of moderate pain, followed by patients with mild pain (score 74.9), patients without pain (score 74.8) and patients with intense pain (score 70.7). In this domain are included questions related to security, conditions of the physical environment, money for the needs, leisure, housing, transportation and access to health services.

Table 3. Scale values ranging from 0 to 100, considering the Physical, Psychological, Social relationships and Environment domains, with the domains of the WHOQOL-BREF and the intensity of reported pain

Variables	Domains			
	Physical	Psychological	Social relationships	Environment
Pain free	47.9	63.6	60.9	74.8
Mild pain	50.9	61.4	62.2	74.9
Moderate pain	55.5	63.4	63.8	77.4
Intense pain	51.3	56	61.3	70.7

In second place, the Social relationships domain showed its lowest average in patients without pain (score 60.9). It is noteworthy that in this domain is assessed the level of satisfaction with the personal circle of people, the support received and the satisfaction with sexual activity.

In the Psychological domain, which assesses whether respondents are satisfied with themselves and their appearance or the frequency of negative feelings, the best score was obtained in patients without pain (63.6), followed by those with moderate pain (score 63.4), patients with mild pain (score 61.4) and patients with intense pain (score 56).

The Physical domain showed an impaired score on all reports and had the best score in the complaints of moderate pain (55.5). In this domain are questioned the presence of pain or discomfort, dependence on medication, satisfaction with sleep, ability to work and daily activities.

Discussion

The limits of the results of this study refer to the cross-sectional method that does not allow establishing relations of cause and effect. The results can contribute to the nursing staff, demonstrating

the clinical characteristics of the population to be served and pain control.

In the past, tumor regression was the priority in cancer treatment, but nowadays the quality of life during treatment is also considered, even in cases when there are no more chances of cure. Pain is the most frequent symptom among patients with cancer,⁽⁷⁾ and its prevalence in patients with advanced stage cancer may exceed 75%.⁽⁸⁾ The results of this study showed that just over half of the participants had some kind of pain although still using drug therapy. The most prevalent intensity was the intense pain, showing the greater use of strong opioids and adjuvant analgesics, as well as a poorer quality of life in all the domains in face of the different types of reported pain.

The World Health Organization, through the analgesic ladder, recommends that intense pain is controlled by combining strong opioids and adjuvants.⁽⁴⁾ However, in this study, this association was not effective. For most patients the side effects of opioids impair the quality of life and the efficacy of palliative therapy, justifying the great number of patients in adjunctive therapy.

Given this reality, the analysis of the prevalence of non-opioid analgesics in this study is contradictory to the literature data, which show the use of opioid medication by approximately 84% of patients.^(9,10) In view of the severity of cancer patients in palliative care, the use of multiple drugs is common. The tolerance to side effects is low, requiring quick response for relief of their symptoms,⁽⁹⁾ in addition to several types of medications for quick and effective pain control.

Therefore, it was found that 53.2% of patients that associated adjuvant medication to analgesic therapy reported no pain and mild pain, while 46.8% reported moderate to intense pain. It was observed that among patients who reported no pain, most were without drug treatment. Some factors may have negatively influenced the assessment of pain in this context, such as patients omitting the intensity of pain from the nurses, besides the fear for possible invasive procedures, new hospitalizations and new conducts in the case. Among the reports of pain, the greatest pain control was obtained by

using weak opioids such as tramadol and codeine, which according to the literature, should be used for moderate pain.^(11,12) It was also found that clients with cancer in palliative treatment had the four domains of quality of life affected, but most notably the Physical domain, which was expected. This domain showed a lower score in all types of reported pain and in those without pain too. In this sense, the quality of life of these patients worsened, what translates as a negative predictor of capacity for everyday activities, making them difficult or painful, which corroborates other authors.^(13,14)

Moreover, the effect of the intensity of pain in the assessment of the QOL of palliative patients also showed that satisfaction with the Psychological domain was higher in those without pain. This demonstrates the influence of pain on positive feelings, self-esteem and spirituality, satisfaction with oneself and appearance. On the contrary, in these patients, satisfaction was not obtained in the Social relationships domain. Such fact can be related to the difficulty of maintaining personal relationships and sexual activity at an advanced cancer stage and with no possibility of cure, even in the absence of pain.

Regarding the perception of quality of life, the results concerning the Environment domain that showed a higher score in all types of pain can be justified by the satisfaction and accessibility of patients to local health services. The service provided in the studied institution is mediated by health professionals who work to ensure access to the benefits granted by law, increasing the chance of cure for some cancers and reducing mortality from the disease and its treatment. This measure becomes crucial in order that patients continue the treatment, as it serves as important support, increasing compliance with treatment and expectations for its completion. Those goals are part of the National Cancer Control Program of the Unified Health System (Sistema Único de Saúde), which aims at healing, prolonging life and improving the quality of life.⁽¹⁵⁻¹⁷⁾

Effective pain relief depends on a very comprehensive evaluation, in order to identify the physical, psychological, social and spiritual aspects, which are the basis for multidisciplinary interventions. Hence, it is

suggested to carry out further research in order to address the patient at different times and situations, providing more comprehensive clinical data, closely monitoring and assessing the influence that pain causes on the quality of life, exploring and predicting its trends.

Conclusion

The results showed that the occurrence of pain affects the quality of life and compromises the activities of daily life.

Collaborations

Mendes TR contributed in the project design, study execution, interpretation of results and final draft of the article. Boaventura RP collaborated in the revision and final formatting of the article. Castro MC cooperated in the analysis and interpretation of data. Mendonça MAO contributed in the project design, review and drafting of the article and final approval of the version to be published.

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