A STUDY ON QUALITY OF LIFE IN PATIENTS WITH BONE TUMORS: A COMPARATIVE ANALYSIS

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Abstract:
Introduction: Managing patients with cancer requires a multidisciplinary approach, especially when the cancer has metastasised to bone. Bone metastases frequently cause complications known as skeletal-related events (SREs), which are associated with significant morbidity, impaired mobility and social functioning, reduced quality of life (QoL).
Aims and objectives: The basic aim of the study is to find the quality of life in patients with bone tumors in Pakistani population.
Methodology of the study: This descriptive study was conducted in Bahawal Victoria Hospital, Bahawalpur during March 2018 to October 2018. The data were collected from 50 patients of both genders who were suffering from bone tumor. This study was done for the analysis of quality of life of bone tumor patients in Pakistan. The data were collected through a prepared questionnaire. These parameters were assessed with three items to determine the relative value that an individual assigns to quality of life (QOL) and quantity of life (LOL). This instrument, designed and refined based on prior research with the target population, asked participants to select from among 4 choices about whether QOL or LOL was more important.
Results: The data were collected from 50 patients of both genders. To develop the propensity score model, we used a multinomial logistic regression of the nominal three-category quality of life variable. The age, SF-12, education, sex, and race terms were entered into the model using restricted cubic splines for age, SF-12 PCS, and SF-12 MCS and interactions of sex with age and education. Approximately half of the patient participants (55%) equally valued QOL and LOL based upon the composite measure. Of those patients with a preference, quality of life was selected more commonly than length of life, 27% vs. 18%.
Conclusion: It is concluded that patients with less cancer-related distress were more likely to favor quality of life over length of life. The direction of causation in this relationship cannot be inferred from these data.

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INTRODUCTION:

Managing patients with cancer requires a multidisciplinary approach, especially when the cancer has metastasised to bone. Bone metastases frequently cause complications known as skeletal-related events (SREs), which are associated with significant morbidity, impaired mobility and social functioning, reduced quality of life (QoL). Patients with advanced cancer exist in a unique medical context in which they are facing mortality and may be considering treatment options that have significant potential for toxicity [1]. In addition, therapeutic choices are characterized by uncertain outcomes, and may be varied and complex, including supportive care alone, standard treatments (e.g. chemotherapy, radiation, biologic), and investigational approaches [2]. Quality patient decision making requires an adequate patient understanding of treatment options, including potential benefit and harm. The physician serves as the primary source of medical information for cancer patients as such, the communication between doctor and patient is of critical importance to quality decision making [3].

Adequate communication about the impact of treatment on quality of life is of particular importance given that patient preference for either quality of life or length of life can influence patient treatment decision making [4]. For example, among cancer patients with advanced disease, an individual's preference for length of life over quality of life is associated with treatment preference for chemotherapy over watchful waiting [5]. Further, a number of socio demographic factors are associated with preference for quality or length of life. Preference for quality of life is associated with older age, and having no children [6]. In contrast, preference for length of life is associated with being young, having children, and good functional health status. Despite its importance for cancer patient treatment decision making, few studies have explored how individual preference for quality or length of life influences the way in which patients wish their doctors to present prognostic and treatment-related information [7].

Aims and objectives

The basic aim of the study is to find the quality of life in patients with bone tumors in Pakistani population.

Methodology of the study

This descriptive study was conducted in Bahawal Victoria Hospital, Bahawalpur during March 2018 to October 2018. The data were collected from 50 patients of both genders who were suffering from bone tumor. This study was done for the analysis of quality of life of bone tumor patients in Pakistan. The data were collected through a prepared questionnaire. These parameters were assessed with three items to determine the relative value that an individual assigns to quality of life (QOL) and quantity of life (LOL). This instrument, designed and refined based on prior research with the target population, asked participants to select from among 4 choices about whether QOL or LOL was more important (QOL is all that matters, QOL is more important but LOL matters, LOL is more important but QOL matters, LOL is all that matters). Participants were also asked to rate the importance of QOL and LOL as independent domains on 5-point scales.

Statistical analysis

We defined QOL and LOL preferences in two ways. We initially defined QOL vs. LOL preference based upon the single 4-point survey item that required patients to prioritize QOL and LOL. In an effort to discriminate patient preferences further given infrequent selection of the extreme values of this single-item measure, we defined three preference groups based upon independent rating of QOL and LOL on the two 5 point scales.

RESULTS:

The data were collected from 50 patients of both genders. To develop the propensity score model, we used a multinomial logistic regression of the nominal three-category quality of life variable. The age, SF-12, education, sex, and race terms were entered into the model using restricted cubic splines for age, SF-12 PCS, and SF-12 MCS and interactions of sex with age and education. Approximately half of the patient participants (55%) equally valued QOL and LOL based upon the composite measure. Of those patients with a preference, quality of life was selected more commonly than length of life, 27% vs. 18%.

Table 01: Relationship between communication preferences, distress, and QOL

	Total RIES	Adjusted Mean (SE)			p-value
	Correlation				
	p	**QOL**	**Equal**	**LOL**	**p**
I want the doctor to speak in a positive manner	0.096 p=0.040	3.65 (.09)	4.03 (.05)	4.19 (.09)	<.001
I want to hear general terms (for example, "the treatment is likely to work") rather than statistics (for example, "the treatment has a 75% likelihood of working").	0.034 p=0.468	3.22 (.12)	3.63 (.07)	3.76 (.12)	.002
I want the doctor to soften the blow when giving me bad news	0.321 p<0.001	2.17 (.10)	2.74 (.08)	2.93 (.16)	<.001
I want the doctor to speak to me in an emotionally supportive way	0.289 p<0.001	3.83 (.08)	4.15 (.04)	4.24 (.07)	<.001
I want to hear detailed statistics	0.074 p=0.112	3.87 (.10)	3.96 (.06)	3.81 (.10)	.358
I want the doctor to speak matter-of-factly (for example, give me the cold hard facts)	-0.217 p<0.001	3.92 (.10)	3.82 (.07)	3.88 (.10)	.721
I want to hear averages about people like me	0.034 p=0.463	4.05 (.07)	4.01 (.05)	4.01 (.10)	.910
I want to hear the doctor's opinion about my case in particular	-0.087 p=0.064	4.70 (.05)	4.66 (.04)	4.64 (.07)	.788

QOL, quality of life preferred; LOL, length of life preferred; Scores represent average responses, 1 = Strongly Disagree, 5 = Strongly Agree (standard deviation)

DISCUSSION:

The data we present indicate that a values preference for length vs. quality of life may be simply measured, and is associated with a desire for more supportive and less pessimistic communication from the oncologist [8]. Communication skill in the cancer context is particularly critical given that patients are commonly facing mortality and "bad news," treatment outcomes are characterized by uncertainty, and treatment is associated with significant potential for morbidity. Previous reports have identified a variety of patient characteristics that bear on their wishes regarding physician communication. For example, women and patients with higher levels of educational attainment have been shown to want more detailed information about their prognosis [9]. Female gender is also associated with desire for a supportive communication style over a blunter approach, while patients with more education and older patients; have been shown to prefer a more fact-oriented style of communication) [7]. The data we present support the hypothesis that preference regarding quality and length of life is a key value that impacts treatment goals and desires regarding physician communication. We also observed that older age (p=0.001), male gender (p=0.004), and higher education (p=0.068) were associated with a preference for quality of life. Even after propensity score adjustment, the QOL/LOL preference was predictive of patient communication preferences [10].

CONCLUSION:

It is concluded that patients with less cancer-related distress were more likely to favor quality of life over

length of life. The direction of causation in this relationship cannot be inferred from these data. It is possible that increased distress is associated with greater difficulty in processing quality of life issues when faced with a life-threatening illness, and therefore a focus on length of life is preferred.

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