Brief Report

From "Breakthrough" to "Episodic" Cancer Pain? A European Association for Palliative Care Research Network Expert Delphi Survey Toward a Common Terminology and Classification of Transient Cancer Pain Exacerbations

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Abstract

Context. Cancer pain can appear with spikes of higher intensity. Breakthrough cancer pain (BTCP) is the most common term for the transient exacerbations of pain, but the ability of the nomenclature to capture relevant pain variations and give treatment guidance is questionable.

Objectives. To reach consensus on definitions, terminology, and subclassification of transient cancer pain exacerbations.

Methods. The most frequent authors on BTCP literature were identified using the same search strategy as in a systematic review and invited to participate in a two-round Delphi survey. Topics with a low degree of consensus on BTCP classification were refined into 20 statements. The participants rated their degree of agreement with the statements on a numeric rating scale (0–10). Consensus was defined as a median numeric rating scale score of ≥7 and an interquartile range of ≤3.

Results. Fifty-two authors had published three or more articles on BTCP over the past 10 years. Twenty-seven responded in the first round and 24 in the second round. Consensus was reached for 13 of 20 statements. Transient cancer pain exacerbations can occur without background pain, when background pain is uncontrolled, and regardless of opioid treatment. There exist cancer pain exacerbations other than BTCP, and the phenomenon could be named "episodic pain." Patient-reported treatment satisfaction is important with respect to assessment. Subclassification according to pain pathophysiology can provide treatment guidance.

Conclusion. Significant transient cancer pain exacerbations include more than just BTCP. Patient input and pain classification are important factors for tailoring treatment. J Pain Symptom Manage 2016;51:1013–1019. © *2016 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.*

Key Words

Cancer pain, pain classification, pain assessment, breakthrough pain, episodic pain, Delphi study

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Introduction

Cancer pain can be caused by the cancer itself or by cancer therapy. Tissue damage may occur in sites such as bone, viscera, and nerve structures and sometimes call for specific treatment strategies. Intermittent spikes of higher pain intensity may occur, most often named breakthrough cancer pain (BTCP).[1] The definitions used for BTCP assume a stable or controlled background pain.[1] However, also when the background pain is not controlled, cancer pain may fluctuate.

The prevalence of BTCP varies between studies.[2] Factors other than differences in symptom and disease burden might influence the reported prevalence. These factors include differences in definitions and diagnostic criteria,[3,4] and inclusion of patients with poorly controlled background pain.[5]

The concept of BTCP involves the presence of a controlled background pain and short periods of higher pain intensity, or transient cancer pain exacerbations. Algorithms for diagnosing BTCP have been proposed.[6–8] Still, there are unsolved issues both regarding definitions and terminology of transient cancer pain exacerbations. There is no agreement on how to classify transient cancer pain exacerbations appearing without background pain. Furthermore, there is no universal agreement on the upper limit of pain intensity of a controlled background pain or the magnitude of increase in pain intensity for a transient cancer pain exacerbation to be clinically significant. And although the issue has been addressed,[9,10] there is no agreement on classification of transient pain exacerbations according to pain pathophysiology or etiology. Discrepancies on definitions and diagnostic criteria may influence the use and interpretation of classification systems.

Based on the unresolved issues identified in a systematic review,[1] and with the overall aim of a higher degree of consensus on definitions and terminology, a Delphi survey was undertaken among international experts on BTCP. The study addresses the following research questions:

1. How should transient cancer pain exacerbations be defined?
2. How should transient cancer pain exacerbations be termed?
3. How could transient cancer pain exacerbations be subclassified to guide treatment?

Methods

A two-round international Delphi expert survey was performed from February to May 2015. The participants, identified by a literature search performed in PubMed using the same strategy as in a recent systematic review on BTCP,[1] were the most frequent authors on the subject over the past 10 years. Delphi surveys may have low response rates,[11,12] and a predefined initial number of approximately 50 experts was chosen to ensure a final sample size large enough for valid results[13] (Fig. 1). The authors and coauthors on BTCP articles were contacted by e-mail and invited to participate in a Web survey. Two reminders were mailed to nonresponders in both rounds, and the survey was closed one week after the final reminder.

The selection of issues to be addressed was initially based on areas with low degree of consensus identified in a systematic literature review on assessment and classification of BTCP.[1] These areas included the question of opioid medication as a prerequisite for the diagnosis of BTCP, the issue of controlled background pain and how to measure it, and the lack of a formal classification system. The authors of this article further discussed these issues and formulated 20 statements (Table 1) for the Delphi survey. This work was done on behalf of the European Association for Palliative Care Research Network.

The study participants were asked to rate their agreement with the statements on an 11-point numeric rating scale (NRS 0–10), with the anchors, "do not agree at all" and "completely agree," respectively. Based on previous research and in accordance with the study protocol,[14,15] the statements reaching a median score of less than seven (NRS 0–10) or an interquartile range (IQR) of more than three were reassessed, except for statements where the participants universally did not agree with the statement (median NRS 0). The median NRS rating and the IQR for each statement in the previous round were disclosed to the participants in the second round. According to a priori agreement and in line with recently published research,[12,15] consensus was defined as a median NRS (0–10) score of seven or more and an IQR of three or less. The results are reported as medians and IQRs of the agreement with the statements.[16]

Results

Fifty-two authors and coauthors had published three or more articles on BTCP over the past 10 years and were eligible for the study (Fig. 1). The contact details were unavailable for four authors; therefore, an invitation mail was sent to 48 potential participants. Two authors declined participation because of lack of clinical experience, leaving 46 potential respondents. After two reminders, 27 respondents provided complete answers to the first round. After two reminders, 24 respondents provided complete answers to the second round.