RESEARCH COMMUNICATION

Knowledge and Attitudes of Physicians in Iran with Regard to Chronic Cancer Pain

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Abstract

Background and aim: The knowledge and attitudes of health care professionals with regard to pain and its impact on the patient are among identified barriers that prevent health care professionals from providing effective treatment for pain. The purpose of the present study was to evaluate knowledge about and attitudes towards cancer pain and its management in Iranian physicians with patient care responsibilities.
Methods: We surveyed 122 physicians in six university hospitals in Tehran. Fifty-five (45.1%) questionnaires were completed. Results: The majority of physicians (76%) recognized the importance of pain management priority and about one half of the physicians acknowledged the problem of inadequate pain management in their settings. Most cited inability to access professionals who practice specialized methods in this field, and inadequate staff knowledge of pain management as barriers to good pain management. A large majority of them expressed dissatisfaction with their training for pain management in medical school and in residency. Furthermore a considerable widespread knowledge deficit among all medical subspecialties and all levels of experience was noted which was significantly more profound in the non-oncologists group and only correlated poorly with number of total treated patients in past 6 months. Conclusion: The most significant barrier to the effective management of pain in cancer patients in Iran is deficit in knowledge as identified in this survey. A combination of an active continuing education program on both the international guidelines with routine professional education and dissemination of guidelines is needed to bring about significant improvement in cancer pain control.

Key Words: Attitudes - cancer pain - knowledge - physician

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Introduction

Pain is one of the most frequent symptoms encountered in oncology and is also a very important issue regarding its complexity and its effects on quality of life (Lossignol, 1991). Prolonged suffering from pain can influence quality of life to the point where patients become unwilling to live (Tzeitlin et al., 2000).

Despite the guidelines issued by World Health Organization for treating pain in cancer patients, pain is often not treated optimally. Numerous barriers have been identified that prevent health care professionals from providing effective treatment for pain including the knowledge and attitudes of health care professionals with regard to pain and its impact on the patient (Mystakidou et al., 1998).

Knowledge and attitudes to cancer pain in Iran have not been previously evaluated in detail. The purpose of the present study was to evaluate knowledge about and attitudes towards cancer pain and its management among Iranian oncologists, surgeons, radiotherapists, and other practitioners.

Methods

Following approval of the study by the Vali-Asr Health Reproduction Research Center (V.R.H.R.C) of Tehran University of Medical Sciences and ethical committee, we surveyed physicians with patient care responsibilities (hematologists, oncologists, surgeons, internists, gynecologists, radiotherapists) in six university hospitals in Tehran.

The questionnaire was similar to Sapir et al. study (1999) with minimal changes resulting from different clinical settings according to the authors' consensus. This questionnaire itself was an adapted version of the questionnaire used earlier (Cherny et al., 1994) that had been developed from the Eastern Cooperative Oncology Group (ECOG) questionnaire of Cleeland et al (1994).

As in the Sapir et al. study (1999), the survey was

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translated into Farsi and the validity of the translation was tested with cross translation back to English. Both the Farsi translation and an English version were offered to the participants. The surveys were distributed to physicians at their clinics and they were requested to complete them within one week.

The first part of the questionnaire queried the demographic data of the participants. The remainder addressed issues including: knowledge of pain epidemiology and practical management, pathophysiology, physicians' attitude towards pain management, their self-assessment of knowledge in the management of cancer pain and physician evaluation of the barriers to relief of cancer pain.

Response frequencies for each of the demographic, attitudes, and knowledge items were tabulated. The total knowledge score was computed on a 0-14 scale based on the number of correct responses to items that evaluated knowledge. Comparisons between specialist oncologists and non-oncologist physicians were performed using t-tests or Mann-Whitney tests. Bi-variate correlation was performed for the two variables: Knowledge-experience and Knowledge-Self-assessment. Statistical calculations were performed utilizing SPSS version 14.0. Differences were considered significant at $P < 0.05$.

Results

Demographics

From a total of 122 distributed surveys, 55 (45.1%) questionnaires were completed. The median age of responders was 37 (ranged from 28 to 65) with 54.6% male responders. Thirty three percent of surveyed physicians had more than 7 years experience in cancer pain treatment. The radiotherapists were the most frequent (n = 19, 34.6%). Others included: medical gynecologists (n = 12), general surgeons (n = 6), gynecologist (n = 14), others (n = 4). Responders were mainly educated in Iran and 36% spent more than two-thirds of their working time with direct patient care. Twelve percent of respondents (n = 7) reported that they attended cancer patients with pain daily, 40% (n = 22) several times a week, 16% (n = 9) less than once a week, and only 22% (n = 12) almost never.

General Attitudes

Comparing the priority of pain management with the treatment of the underlying cancer, 38% of the responding physicians described it as equal priority, 38% described it as ,lesser, but almost equal, priority, and 24% as a substantially lesser or much less of priority. Most of them believe that following the cancer patient to receive desirable pain treatment is of great importance, while 30% accounted it fair and 9% less and none of no importance. Meanwhile most of the clinicians (65%) noted that the majority of patients in pain are under-medicated in their centers.

Physician Evaluation of the Barriers to Relief of Cancer Pain

The most commonly endorsed barriers (strongly or very strongly) to the effective management of cancer pain were: inability to access the professionals who practice specialized methods in this field (81%), inadequate staff knowledge of pain management (79%), lack of access to a wide range of analgesics (74%), inadequate assessment of pain and pain relief (67%), lack of equipments or skills (63%) and excessive state regulations about opioids prescription (48%).

Medical staff reluctance to prescribe opioids (23%), patient reluctance to take opioids (15%) and nursing staff reluctance to administer opioids (35%) were not commonly considered barriers to successful pain relief.

Education in Cancer Pain and Its Treatment

Most of responders scored their education in cancer pain management poor or very poor during their education in medical school and residency.

Knowledge about Cancer Pain and Its Treatment

The median of knowledge was 2 (range from 0 to 6) from 14.

Drugs Used in the Management of Cancer Pain

Ninety-three percent of responders were familiar with the use of morphine in the management of cancer pain. Of the other recommended opioids, familiarity was high for codeine (86%), NSAIDs (86%), pethidine (86%), and pentazocine (56%).The most familiar adjuvant drugs were dexamethasone (88%), amitriptyline (69.1%), carbamazepine (60%) and calcitonin (40%). Very few clinicians were familiar with the use of the psychostimulants such as methylphenidate (14.5%) or pemoline (1.8%) in the management of opioid-induced drowsiness.

Physicians' Self-Assessment of Knowledge in the Management of Cancer Pain

More than two-thirds of respondents indicated that they were moderately or extremely comfortable in the use of non-opioid analgesics for mild pain (89%), assessment of the cause of the pain (83%), assessment of the severity of the pain (77%), and managing nausea in patients receiving opioids (75%). Between half and two-thirds of the participants were moderately or extremely comfortable in the managing bone pain (67%), selecting a starting dose for opioid therapy (58%), managing postoperative pain (56%) and procedural pain (67%). Less than half of the participants were comfortable with titrating the opioid dose in patients with poor pain control (48%), managing somnolence or confusion among patients receiving opioids (41%), identifying addiction (40%), dose calculations when switching between the oral and parenteral routes of opioid administration (35%), opioid infusions (33%), appropriate time of managing opioid withdrawal symptoms (33%), appropriate time of switching between opioids (23%), using controlled release opioid formulations (20%) and using "rescue doses" (17%).

Knowledge-experience and Self-assessment Correlations

However there was no significant correlation between duration of cancer pain treatment and total Knowledge score ($r=0.11$, $P=0.44$) but number of total treated patients

in past 6 months was significantly correlated with knowledge score (r=0.301, P=0.03). No significant correlation were found between total knowledge score and Self-assessment (r=0.22, P=0.11).

Knowledge-subspecialty

Comparisons between specialist oncologists and non-oncologist physicians showed significantly higher knowledge score among oncologists (3.17±1.19 vs. 2.14±1.52, P=0.02).

Discussion

This survey evaluated a sample of Iranian physicians to assess their attitudes toward the management of cancer pain, their education and knowledge. This study showed that the majority of physicians (76%) recognized the importance of pain management priority and its place regarding with treatment which is compatible with other studies (Sapir et al., 1999).

Despite these noticeable findings which reflected a positive attitude towards this issue and an awareness of its importance, about one half of the physicians acknowledged the problem of inadequate pain management in their settings.

When asked about barriers to good pain management in their own practice setting, most cited unavailability of professionals who practice specialized methods in this field, and inadequate staff knowledge of pain management. A large majority of them expressed dissatisfaction with their training for pain management in medical school and in residency.

Furthermore, the results of this study showed a considerable widespread knowledge deficit among all medical subspecialties and all levels of experience. It is the most important barrier that was also noted in pervious studies (Rawal et al., 1993; Elliott et al., 1995; Sapir et al., 1999; Ger et al. 2000;Yu et al., 2001; Yun et al., 2005; Devi et al., 2006; Jeon et al., 2006). The knowledge deficit was significantly more profound in non-oncologist group and was only correlated poorly with number of total treated patients in past 6 months. This suggests that treating cancer patients with pain frequently was associated with a higher total score on knowledge items. No correlation was found between what doctors think they know and what they know about cancer pain and its management.

A frequently mentioned cause for this situation is poor knowledge, especially regarding the use of opioids. A high proportion of responders named certain opioids in the management of cancer pain that are not recommended for this purpose, specifically pethidine and pentazocine. Several general observations can be made. First, this study has shown that knowledge deficits were endemic and were widespread among all medical subspecialties which were more prominent in non-oncologists. Thus, we assume that practice and educational changes will be needed before there are significant improvements in cancer pain control. A need for improved training in cancer pain management at all levels of professional education was implied by the responses to the survey. Inspite of the increased space devoted to pain management in textbooks of medicine, oncology or both, pain management training needs to become a part of the day-to-day clinical evaluation and care of cancer patients (Von Roenn et al., 1993). Secondly, there is a discrepancy between what the studied physicians know and what they think they know. Finally, lack of access to a wide range of analgesics was the other barrier cited by the responders that urges health providers' considerations.

This study suffered from low response rate (45.1%) compared with other studies (e.g. 79% to 100 in Rawal et al. (Rawal et al., 1993). Since the physicians were asked to complete the survey in one week time, there might be a degree of self-selection bias commonly seen with postal surveys, which typically yield response rates of 20-30%. Sapir et al. (Sapir et al., 1999) have utilized “on the spot” method which resulted in a very high response rate. This method of survey administration avoided this bias and is accompanied with higher response rates.

Conclusions

In conclusion, the most significant barrier to the effective management of pain in cancer patients in Iran is knowledge deficit in identified in this survey. A combination of an active continuous education program on both the international guidelines with routine professional education and dissemination of guidelines is needed to bring about significant improvement in cancer pain control.

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