

# Cancer Pain Management: Basic Information for the Young Pain Physicians

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### ABSTRACT

Cancer pain is multifactorial and complex. The impact of cancer pain is devastating, with increased morbidity and poor quality of life, if not treated adequately. Cancer pain management is a challenging task both due to disease process as well as a consequence of treatment-related side-effects. Optimization of analgesia with oral opioids, adjuvant analgesics, and advanced pain management techniques is the key to success for cancer pain. Early access of oral opioid and interventional pain management techniques can overcome the barriers of cancer pain, with improved quality of life. With timely and proper anticancer therapy, opioids, nerve blocks, and other non-invasive techniques like psychosocial care, satisfactory pain relief can be achieved in most of the patients. Although the WHO Analgesic Ladder is effective for more than 80% cancer pain, addition of appropriate adjuvant drugs along with early intervention is needed for improved Quality of Life. Effective cancer pain treatment requires a holistic approach with timely assessment, measurement of pain, pathophysiology involved in causing particular type of pain, and understanding of drugs to relieve pain with timely inclusion of intervention. Careful evaluation of psychosocial and mental components with good communication is necessary. Barriers to cancer pain management should be overcome with an interdisciplinary approach aiming to provide adequate analgesia with minimal side-effects. Management of cancer pain should comprise not only a physical component but also psychosocial and mental components and social need of the patient. With risk-benefit analysis, interventional techniques should be included in an early stage of pain treatment. This article summarizes the need for early and effective pain management strategies, awareness regarding pain control, and barriers of cancer pain.

**Key words:** Basic issues, Cancer pain, Oral morphine

### INTRODUCTION

The term “cancer” is the most feared and burdensome word to the patient as well as to their family. Cancer pain is multifocal and dynamic and, if not treated adequately, the consequences are devastating. Oral morphine remains the cornerstone of cancer pain management. In 20–30% of cancer patients, pain is present in the early stage of disease, and the figure goes beyond 70–80% in advanced stages of cancer. Although most of the

patients get adequate pain relief with opioid, a minority of patients treated with oral morphine (10–30%) do not have a successful outcome because of excessive adverse effects, inadequate analgesia, or a combination of both.<sup>[1-3]</sup> Cancer pain affects the physical, social, and spiritual components of life if untreated or undertreated.

### MAGNITUDE OF CANCER PAIN PREVALENCE

The World Health Organization (WHO) estimated that approximately 9 million new cancer cases are added every year.<sup>[4]</sup> The statistics from the Global Burden of Cancer (GLOBOCAN) 2008 showed that in 2008, a majority of the 12.7 million new cases of cancer and the 7.6 million cancer deaths worldwide occurred in developing countries.<sup>[5]</sup> In India, 2–2.5 million new cases of cancer

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are added every year.<sup>[6]</sup> Of these patients, 60–80% present in advanced stage of the disease and about 60% patients require only pain and palliative care but, unfortunately, only 28% of the patients get palliative care and pain relief.<sup>[7,8]</sup> In recent years, the number of cases with cancer pain are increasing rapidly. It has been a cause of concern for all to relieve cancer patients from their pain.

### **BARRIERS IN CANCER PAIN**

Cancer pain is often suboptimally managed, primarily because of inadequate pain assessment or lack of aggressive treatment.<sup>[9]</sup> Predictors of inadequate management include patient characteristics, physician practice, and the type of treatment setting.<sup>[10]</sup> Most of the patients are keener regarding treatment of their cancer rather than pain management. Physicians are also reluctant in providing complete pain relief because of poor knowledge of opioids and their prescription. Many patients do not seek proper cancer pain management from pain specialists because they think that they are suffering from an incurable disease and they will have to die in pain. There is opiophobia among patients as well as doctors; the government rule's for opioid prescriptions are rigid and complex and there is lack of training for pain management. There are also many legal and political issues among hospitals and physicians regarding the availability of strong opioid keeping and its prescription.

In most developing countries, cancer pain management is performed by a Medical oncologist, Radiation oncologist, and Surgical oncologist and not by an Anesthesiologist, who is most of the time trained in using various opioids and alternate route of administering these drugs for better pain relief. An interdisciplinary pain treatment approach with the help of anesthesiologist, medical or surgical oncologist, physiotherapist, and nurses should be encouraged for better efficacy and results. Pain management is still not an essential component of oncological care. The patient does not know whom to discuss with. Pain may be underreported by the patient as there may be language or cultural difference or fear of addiction. These barriers can be overcome by educating the patient regarding cancer pain at the time of diagnosis and regular follow-up in a pain management center.

### **COMMUNICATION BETWEEN PHYSICIANS AND CANCER PATIENTS**

Because pain is a subjective feeling and the person who is suffering from cancer pain can exactly tell what the pain is like, effective treatment of cancer pain relies on good communication between patient and physician. It

has been seen that it is very difficult to control cancer pain once it becomes severe. Physician should discuss every aspect of life affected by cancer pain. The patient should be told that cancer pain is always not a terminal event. Good communication skills help in identifying the emotional problems and psychological difficulties of cancer patients.<sup>[11]</sup>

Most cancer patients do not want to take oral morphine because they think that they will become addicts and that there will be respiratory depression due to oral morphine. They should be told that cancer pain works as an antagonist of the respiratory-depressant effects of opioids. Also, the risk of addiction is very rare among cancer patients. Mistaken concerns about addiction can result in undertreating pain, and all these problems can be solved with effective communication.

### **INADEQUATE ATTENTION TOWARDS PAIN MANAGEMENT BY THE PHYSICIAN**

Cancer pain affects the physical, social, psychological, and spiritual components of life. The patients should be counseled regarding pain and its available treatment options in the early stage of disease, rather than when they suffer from excruciating pain due to malignancy or associated treatments like radiotherapy or chemotherapy.<sup>[12]</sup> Trowbridge *et al.* found that standardized pain assessment alone improved cancer pain management and reduced patient-reported pain severity.<sup>[13]</sup> Du Pen and colleagues found that the institutional use of a simple protocol for cancer pain management reduced pain severity.<sup>[14]</sup> Studies undertaken by the Eastern Cooperative Oncology Group (ECOG) have also suggested that the undertreatment of pain was prevalent among the institutions.<sup>[9]</sup>

As such, there is no uniform cancer pain management guideline in most of the countries for effective cancer pain management. The Scottish Intercollegiate Guidelines Network (SIGN) guidelines are the most up-to-date evidence-based guidelines for the best possible treatment available for pain.<sup>[15]</sup> The Delphi Report also highlights the urgent need for the WHO to develop guidelines that together cover the management of all types of pain and promote their implementation as well as facilitate the availability of essential drugs, including opioids.<sup>[16]</sup>

### **COMPREHENSIVE PAIN ASSESSMENT**

Assessment of cancer pain is a crucial skill, which requires actively listening and eye to eye contact with the patient.

Give importance to whatever the patient says. Proper history taking and physical examination is the key to success. Pain and suffering are not synonymous. Palliation of associated signs and symptoms can be challenging in some situations. The intensity of pain can be measured by Visual Analog Scale (VAS), verbal scale, or numerical rating scale. The physician should know exactly the nature and type of pain and, accordingly, adjuvant agents should be incorporated in treatment plan. The degree of pain relief should be documented at regular time intervals. The physician should not hesitate to consider different routes of opioid administration for early and complete pain relief. Interventional pain procedures should be given priority where and when indicated (e.g., nerve blocks for neuropathic pain, consideration of intrathecal morphine for visceral pain, etc.). Patients and their families should be taught regarding the best possible strategy for pain relief.

Pain management index (PMI) is a good tool for assessing the adequacy of pain treatment.<sup>[17]</sup> Pain management is considered adequate when there is congruence between the patient's reported level of pain and the appropriateness of the prescribed analgesic drug. The PMI provides a comparison of the most potent analgesics prescribed for a patient's reported pain.

### CURRENT STATUS OF CANCER PAIN MANAGEMENT

Cancer pain may present as "background pain, spontaneous pain, or incidental pain." Pain relief in background pain can be achieved satisfactorily using opioids and adjuvant drugs, but most physicians find it difficult to treat spontaneous or incidental pain.<sup>[18]</sup> Apart from opioids for cancer pain relief, radiotherapy, chemotherapy, and bisphosphonates also provide pain relief in a selected group of patients.<sup>[19]</sup> Bony pain accounts for approximately 90% of the cancer-related pain, and most of the treatment either with opioids or interventional therapies fails to achieve satisfactory pain relief.<sup>[20]</sup> There are many drugs and treatment options for effective cancer pain management and there is always more that can be done to treat cancer pain. For patients who have mucositis, difficulty in swallowing, or having side-effects like nausea and vomiting, use of intravenous or subcutaneous infusion can be an option.<sup>[21]</sup>

Apart from opioids, non-steroidal anti-inflammatory drugs (NSAIDs), bisphosphonates, corticosteroids, anticonvulsants, cannabinoids, and antidepressants are the main agents used to treat cancer pain. There are other non-

pharmacological methods such as acupuncture, hypnosis, physiotherapy, and radiopharmaceuticals<sup>[22]</sup> that can be used along with pain medications to obtain complete pain relief. Palliative radiotherapy, peripheral nerve blocks, and selective neuroablative procedures should be used wherever necessary.

Opioids should be taken regularly, on a fixed-dose schedule, around the clock. If pain is not controlled with opioids in combination with adjuvant drugs, nerve blocks should be considered. Although there is no maximum upper limit of oral morphine, the optimal dose of morphine is that dose at which adequate pain relief is obtained with acceptable side-effects. The physicians should identify the type and nature of pain so as to include necessary adjuvant drugs like Gabapentine and pregabalin for neuropathic pain. Breakthrough pain can severely affect a person's quality of life; therefore, effective and optimum dose of opioid is necessary for its control. Clinicians should be aware of the fact that intensity of cancer pain may increase or decrease over the time and over the course of malignancy, thereby necessitating a change in drug prescription at a suitable time.

It is thought that neonates, children, and elderly people experience very little pain and there is ignorance regarding adequate pain management in this population. These groups of patients should be given special attention. Cancer pain should be taken very seriously. If not properly treated or undertreated, it can affect the patient's and their family's daily life, their ability of work, their ability to interact in society, and, ultimately, worsen the overall quality of life.

### ROLE OF INTERVENTIONAL PAIN MANAGEMENT

In recent years, there is a need to include interventional pain management as the fourth step of the WHO ladder.<sup>[23]</sup> Because specific pain like neuropathic pain, visceral pain, and phantom limb pain syndrome warrants nerve block for its complete relief, advocating early interventional therapy for cancer pain relief has been addressed by many studies.<sup>[24,25]</sup> Patients who are on high doses of strong opioids, or when there are excessive side-effects of the drugs used for cancer pain relief, use of intrathecal morphine pump or spinal cord stimulator can improve the overall survival and better quality of life.<sup>[26]</sup> Recently, results of pulse radiofrequency ablation of mixed or sensory nerves for neuropathic pain are quite promising.<sup>[27,28]</sup> For abdominal pain, celiac plexus neurolysis and superior hypogastric plexus neurolysis and for perineal pain, ganglion of Walther neurolysis should be considered.<sup>[29-32]</sup>

## CONCLUSION

Relief of cancer pain should be a human right. The physician should understand that the patient's self-report of pain is the single most reliable indicator of pain. Pain education teaching should be included in the teaching curriculum of each institute. For complete freedom from pain cancer, a pain treatment policy should be adopted. Although the WHO formulated guidelines for cancer pain in 1986, these guidelines have not been updated regularly and there lies an importance to regularly update these guidelines so as to achieve the target satisfactory pain relief. Oral morphine is very effective in moderate to severe pain. Newer drugs like methadone, oxycodone, hydromorphone, and different preparations of fentanyl should be included in the analgesic ladder along with the addition of interventional techniques. There is a need to document pain as the "fifth vital sign" around the world. By providing pain management education to each physician, better pain management of cancer patients with minimal side-effects can be achieved. By community education and improved awareness about cancer pain and its available treatment, we can provide relief, comfort, and better quality of life to cancer patients.

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