Indian Society for Study of Pain, Cancer Pain Special Interest Group Guidelines on Complementary Therapies for Cancer Pain

Arif Ahmed, Raghu S Thota[1], Sushma Bhatnagar[2], Parmanand Jain[1], Raghavendra Ramanjulu[3], Naveen Salins[4], Aparna Chatterjee[1], Dipasri Bhattacharya[5]

Department of Anaesthesia, Critical Care and Pain Management, CK Birla Hospital for Women, Gurugram, Haryana, [1]Department of Anaesthesiology, Critical Care and Pain, Tata Memorial Centre, Homi Bhabha National Institute, Mumbai, Maharashtra, [2]Department of Onco-Anaesthesia and Palliative Medicine, Dr. B.R.A. Institute Rotary Cancer Hospital, All India Institute of Medical Sciences, New Delhi, [3]Department of Pain and Palliative Care, Cytecare Hospital, Bengaluru, [4]Department of Palliative Medicine and Supportive Care, Manipal Comprehensive Cancer Care Centre, Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Karnataka, [5]Department of Anaesthesiology, Critical Care and Pain, R.G. Kar Medical College, Kolkata, West Bengal, India

Abstract

The Indian Society for Study of Pain (ISSP), cancer pain Special Interest Group (SIG) guidelines on complementary therapies for cancer pain in adults provides a structured, stepwise approach which will help to improve the management of cancer pain and to provide the patients with a minimally acceptable quality of life. The guidelines have been developed based on the available literature and evidence, to suit the needs, patient population, and situations in India. A questionnaire based on the key elements of each sub drafts addressing certain inconclusive areas where evidence was lacking, was made available on the ISSP website and circulated by e-mail to all the ISSP and Indian Association of Palliative Care members. We recommend that psychological interventions, including psychoeducation, are useful and should be considered in patients with cancer pain and psychological distress. Furthermore, physical and complementary treatment can be used as an adjunctive therapy for patients with cancer pain.

Keywords: Acupuncture, cancer pain management guidelines, cancer pain management, cancer pain special interest group, cognitive behavioural therapy, complimentary therapy, Indian Association of Palliative Care, Indian society for study of pain

Introduction

Worldwide, low- and middle-income countries are experiencing significant increases in rates of noncommunicable diseases, including cancer.[1] In India, more than one million new cases of cancer are diagnosed each year, and it is estimated that the cancer burden in India will almost double during the coming 20 years.[2] The incidence of pain in advanced stages of cancer approaches 70%–80%.[3] A meta-analysis of epidemiological studies on cancer pain revealed that the pain prevalence rates were 39.3% (95% confidence interval [CI] 33.3–45.3) after curative treatment; 55.0% (95% CI 45.9–64.2) during anticancer treatment; 66.4% (95% CI 58.1–74.7) in advanced, metastatic, or terminal disease, and 50.7% (95% CI 37.2–64.1) in all cancer stages.[4] It was also shown that over 38.0% of all cancer patients experienced moderate to severe pain (pain score >4/10).[4] In a study done in four regional cancer centers in India, 88% of patients reported experiencing pain for about 7 days, and approximately 60% reported that their worst pain was severe.[5]

Although pain is often the primary presenting symptom of cancer and despite the presence of guidelines and the availability of opioids, cancer pain still remains undertreated. In a systematic review[6] published in 2014 using the Pain Management Index, approximately 1/3rd patients did not receive appropriate analgesia

Access this article online

Quick Response Code:

Website: www.jpalliativecare.com

DOI: 10.4103/0973-1075.285695

Address for correspondence: Dr. Raghu S Thota, Department of Anaesthesiology, Critical Care and Pain, Tata Memorial Centre, Homi Bhabha National Institute, E Borges Road, Parel, Mumbai - 400 012, Maharashtra, India.
E-mail: ragstho24@gmail.com

How to cite this article: Ahmed A, Thota RS, Bhatnagar S, Jain P, Ramanjulu R, Salins N, *et al*. Indian society for study of pain, cancer pain special interest group guidelines on complementary therapies for cancer pain. Indian J Palliat Care 2020;26:198-202.

proportional to their pain intensity, as advised by the World Health Organization (WHO) analgesic ladder.

The WHO states that "Drug treatment is the main stay of cancer pain management."[7] Pain treatment using the WHO guidelines provides pain relief in majority of patients, though an effective pain relief may take a long time in third of the patients. Neuropathic, psychological, social, and spiritual symptoms dominate in patients with chronic cancer pain even when associated with nociceptive pain.[8] This impairs the quality and functional life of patients, increases fatigue levels and affects daily activities of life.[9] The patients and caregivers seek different approaches in pain management because of the above symptoms. Hence, in addition to pharmacological treatment options for pain management, non-pharmacological options, and complementary treatments are being implemented for cancer pain management.[10,11] These guidelines are developed to improve the management of cancer pain and to provide the patients with a minimal acceptable quality of life.

Methods

Literature search [Appendix IV] was carried out using PUBMED, MEDLINE, COCHRANE DATABASE, GOOGLE SCHOLAR, OVID Search engine. The search included studies published in the English language until November 2018. Where evidence is lacking, recommendations were made by consensus (good clinical practice), following extensive discussion among the committee members and considering the results of the questionnaire [Appendix V] circulated during the meeting, and also was made available on the Indian Society for Study of Pain (ISSP) website and circulated by E-mail to all the ISSP and Indian Association of Palliative Care (IAPC) members.

A comprehensive cancer center needs to address to the patients pain, stress, anxiety, depression, and fear of death and thus integration of complementary and alternative medicine[12] therapies with various allopathic interventions will further improve the therapeutic benefit of cancer pain management. The nonpharmacological therapies aim to treat affective, cognitive, behavioural, and socio-cultural dimensions of cancer pain.

There are several complementary therapies that are used for alleviating the distressing symptoms in patients with cancer, which includes the following:

Acupuncture

Acupuncture involves insertion of needles into the skin and underlying tissues known as acupuncture points. One systematic review and meta-analysis of several randomized-controlled trials (RCT's) on acupuncture for cancer pain management found that acupuncture alone is not superior to conventional therapy in treating cancer pain; however, acupuncture with conventional drug therapy resulted in increased pain remission rate, faster onset time of pain relief, prolonged pain-free duration, and better quality of life.[8]

Aromatherapy

Aromatherapy is provided through the plant essences, which are applied either to the skin through massage, or added to baths or inhaled with steaming water.

A Cochrane review of eight RCT have found that aromatherapy massage may have short-term benefits on patient's well-being such as reduction of anxiety; however, these trials have not been able to provide any clinically significant analgesic benefit.[13]

Herbal medicine

Herbal medicine is the use of plants and plant products as medicine. There is no convincing evidence for the use of herbal medicine for the relief of cancer pain.[14]

Homeopathy

It is a system of complementary medicine, in which ailments are treated by minute doses of natural substances that in larger amounts would produce symptoms of the ailment.

A review of six RCT on the use of homeopathic remedies for cancer did not finding convincing evidence of its effectiveness in the relief of cancer pain.[15]

Hypnotherapy

It is a technique of producing relaxation by inducing a trans-like state.

A systemic review comprising 1 RCT and 26 other studies including retrospective studies and case series have found conflicting results with poor methodology of the studies making the results inconclusive.[16]

However, evidence from the two systematic reviews showed that hypnosis is effective in managing procedure related cancer pain in the paediatric population.[17,18]

Massage

Massage is the technique where manipulation of the body's soft tissue is done by using various manual techniques and the application of pressure and traction.

The role of massage therapy in relieving pain is not convincing; however, it may help in inducing a sense of well-being and thus may reduce the stress and anxiety levels.[19]

Music therapy

Music therapy is used as passive (receptive) and/or active therapy.

There is no evidence as suggested by multiple RCTs that music therapy is effective in the control of cancer pain.[14]

Reflexology

Reflexology involves the application of manual pressure on areas of hands and feet, which are believed to other areas of the body or internal organs.

Systematic reviews of a few RCTs have found that it is effective in reducing in anxiety; however, limited evidence in receiving the pain among the cancer patients.[20]

Relaxation

Relaxation is a technique which possibly results in relaxation of autonomic nervous system, resulting in various positive effects in the patients. However, there is no evidence to show that it has any positive analgesic effects.

Psychosocial and behavioural interventions

There is very strong evidence which suggests that psychological factors contribute to increased pain perception and suffering among patients with cancer and their families.[21]

A review stated that multidisciplinary approaches adopting a bio-psychosocial perspective offer a more comprehensive treatment to minimalistic ones relying solely on pharmacological treatments.[21,22] The bio-psychosocial approach views pain as an illness rather than disease, thus recognizing the subjective nature of the pain experience. Apart from reducing pain and distress arising from painful medical procedures, psychological interventions can also instill a sense of control and empowerment in the individual, making the person an active participant in their own care. Psychoeducational interventions (e.g. a relaxation audiotape)[23] are not a substitute for analgesics, but they may serve as adjuvant therapy. Education about analgesic use was frequently, but not invariably, found to reduce pain. Bennett *et al*.[24] suggested the use of educational intervention with routine clinical practice alongside optimal oncological and analgesic management. Given the subjective and changing nature of pain and the fact that some psycho educational interventions may be more acceptable to patients than others, clinical judgment is key.[23]

Cognitive behavioral therapy[12] (CBT) is currently the most widely used psychological treatment for persistent pain. This involves three steps. The first step is pain education. The second step is training in one or more coping skills for managing pain (e.g. relaxation or problem solving). The third step in training is home practice with learned skills.

A meta-analysis[25] in 2006, concluded that CBT techniques have beneficial effects on pain and distress in women with breast cancer, finding moderate effect sizes. Relaxation-based cognitive-behavioral interventions[23] usually were effective in reducing pain shortly after treatment.

Safety issues

There is a misconception among the general population that these complementary therapies are safe and are devoid of any harm. However, the fact is actually it is contrary to this notion. These therapies are associated with some risks if it is administered inappropriately. Furthermore, few of these are associated with potentially severe complications such as pneumothorax with acupuncture, drug interactions with herbal medications, and so on. Furthermore, patients do self-medicate themselves with these therapies leading to interactions with cancer treatment and most of the times patients do not disclose about these medications with the treating physicians.

Conclusion

The ISSP cancer pain Special Interest Group (SIG) guidelines on complementary therapies for cancer pain in adults emphasizes the importance of the psychoeducation as well physical and complementary treatment as adjunct therapy for cancer pain management [Table 1].

Table 1: Summary of recommendations

Recommendations	Level of evidence
Psychological interventions, including psychoeducation, are useful and should be considered in patients with cancer pain and psychological distress (Grade A)	Ia
Physical and complementary treatment can be used as an adjunctive therapy for patients with cancer pain (Grade B)	III

We believe that the ISSP cancer pain SIG guidelines complementary therapies for cancer pain in adults will help pain specialist, anaesthesiologists, palliative care specialists, and others who are involved in cancer pain care, in the safe management of cancer pain and to provide the patients with a minimally acceptable quality of life.

Acknowledgments

The ISSP cancer pain SIG guidelines' GDC would like to thank the President, secretary of ISSP, the governing council of ISSP as well the Chairman of SIG. The ISSP cancer pain SIG guidelines' GDC would like to thank the members of the ISSP, the IAPC and other anaesthesiologists who responded to the questionnaire and gave their valuable feedback which helped in the formulation of these guidelines.

The ISSP cancer pain SIG would like to whole heartedly thank the internal review committee and the external review committee.

Disclaimer

The contents of this publication are guidelines to clinical practice, based on the best available evidence at the time of development. These guidelines should neither be construed or serve as a standard of care.

These guidelines do not represent the minimum standard of practice, nor are they a substitution for good clinical judgment. These guidelines need to be used in conjunction with patient assessment and may be individualized as per patient need.

These guidelines were developed in 2018-2019 and may be reviewed again in 2024 or sooner, based on the availability of new evidences.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Miranda JJ, Kinra S, Casas JP, Davey Smith G, Ebrahim S. Non-communicable diseases in low- and middle-income countries: Context, determinants and health policy. Trop Med Int Health 2008;13:1225-34.
2. Mallath MK, Taylor DG, Badwe RA, Rath GK, Shanta V, Pramesh CS, *et al*. The growing burden of cancer in India: Epidemiology and social context. Lancet Oncol 2014;15:e205-12.
3. Saini S, Bhatnagar S. Cancer pain management in developing countries. Indian J Palliat Care 2016;22:373-7.

4. van den Beuken-van Everdingen MH, Hochstenbach LM, Joosten EA, Tjan-Heijnen VC, Janssen DJ. Update on prevalence of pain in patients with cancer: Systematic review and meta-analysis. J Pain Symptom Manage 2016;51:1070-90.e9.
5. Doyle KE, El Nakib SK, Rajagopal MR, Babu S, Joshi G, Kumarasamy V, *et al*. Predictors and prevalence of pain and its management in four regional cancer hospitals in India. J Glob Oncol 2018;4:1-9.
6. Greco MT, Roberto A, Corli O, Deandrea S, Bandieri E, Cavuto S, *et al*. Quality of cancer pain management: An update of a systematic review of undertreatment of patients with cancer. J Clin Oncol 2014;32:4149-54.
7. World Health Organization. World Health Organization Cancer Pain Relief with a Guide to Opioid Availability. Geneva: World Health Organization; 1996.
8. Caraceni A, Portenoy RK. An international survey of cancer pain characteristics and syndromes. IASP Task Force on Cancer Pain. International Association for the Study of Pain. Pain 1999;82:263-74.
9. Allard P, Maunsell E, Labbé J, Dorval M. Educational interventions to improve cancer pain control: A systematic review. J Palliat Med 2001;4:191-203.
10. Kwekkeboom KL, Kneip J, Pearson L. A pilot study to predict success with guided imagery for cancer pain. Pain Manag Nurs 2003;4:112-23.
11. Menefee LA, Monti DA. Nonpharmacologic and complementary approaches to cancer pain management. J Am Osteopath Assoc 2005;105:S15-20.
12. Singh P, Chaturvedi A. Complementary and alternative medicine in cancer pain management: A systematic review. Indian J Palliat Care 2015;21:105-15.
13. Hu C, Zhang H, Wu W, Yu W, Li Y, Bai J, *et al*. Acupuncture for pain management in cancer: A systematic review and meta-analysis. Evid Based Complement Alternat Med 2016;2016:1720239.
14. Fellowes D, Barnes K, Wilkinson S. Aromatherapy and massage for symptom relief in patients with cancer. Cochrane Database Syst Rev 2004;3:CD002287.
15. Ernst E, Pittler MH, Wider B, Boddy K. Complementary therapies for back pain: Is the evidence getting stronger? Clin Rheumatol 2007;26:736-8.
16. Milazzo S, Russell N, Ernst E. Efficacy of homeopathic therapy in cancer treatment. Eur J Cancer 2006;42:282-9.
17. Rajasekaran M, Edmonds PM, Higginson IL. Systematic review of hypnotherapy for treating symptoms in terminally ill adult cancer patients. Palliat Med 2005;19:418-26.
18. Richardson J, Smith JE, McCall G, Pilkington K. Hypnosis for procedure-related pain and distress in pediatric cancer patients: A systematic review of effectiveness and methodology related to hypnosis interventions. J Pain Symptom Manage 2006;31:70-84.
19. Wild MR, Espie CA. The efficacy of hypnosis in the reduction of procedural pain and distress in pediatric oncology: A systematic review. J Dev Behav Pediatr 2004;25:207-13.
20. Corbin L. Safety and efficacy of massage therapy for patients with cancer. Cancer Control 2005;12:158-64.
21. Stephenson NL, Weinrich SP, Tavakoli AS. The effects of foot reflexology on anxiety and pain in patients with breast and lung cancer. Oncol Nurs Forum 2000;27:67-72.
22. Syrjala KL, Jensen MP, Mendoza ME, Yi JC, Fisher HM, Keefe FJ. Psychological and behavioral approaches to cancer pain management. J Clin Oncol 2014;32:1703-11.
23. Devine EC. Meta-analysis of the effect of psychoeducational interventions on pain in adults with cancer. Oncol Nurs Forum 2003;30:75-89.
24. Bennett MI, Flemming K, Closs SJ. Education in cancer pain management. Curr Opin Support Palliat Care 2011;5:20-4.
25. Tatrow K, Montgomery GH. Cognitive behavioral therapy techniques for distress and pain in breast cancer patients: A meta-analysis. J Behav Med 2006;29:17-27.

Appendixes

Appendix IV: Literature search

The following terms or MESH terms were used either in combination or single:

"Pain"[Mesh], "Prevalence"[Mesh], "Signs and symptoms"[Mesh], "Syndrome"[Mesh], "Diagnosis"[Mesh], presentation, "Neoplasms"[Mesh], tumours, cancers, physical assessment", "Pain Measurement"[Mesh], "pain scale'', psychosocial, assessment, "cognitively impaired', "psychological distress", distress, "Emotions"[Mesh] "Nursing"[Mesh], "prime assessor", "Palliative Care"[Mesh], "supportive care'', "cancer pain management", "Patient-Centered Care"[Mesh], "Patient Care Team"[Mesh], "Patient Care Management"[Mesh], "Primary Health Care"[Mesh], "Physicians, Family"[Mesh]), interdisciplinary, Education"[Mesh], outcome, barrier, "World Health Organization"[Mesh], "Guideline "[Publication Type], "cancer pain ladder", "World Health Organization three step analgesic ladder"[Mesh], Drug Therapy"[Mesh], "Analgesics, Opioid"[Mesh], "administration and dosage"[Subheading], titration, "breakthrough pain", "Drug Tolerance"[Mesh], "Adjuvants, Pharmaceutic"[Mesh], "adjuvant analgesics", "pregabalin "[Substance Name], "Ketamine"[Mesh], "Dexamethasone"[Mesh], corticosteroid, "opioid rotation", "opioid switching", "alternative opioid", "Bisphosphonates"[Mesh], "Sedation score", "Morphine protocol", "Radiotherapy"[Mesh], "Soft Tissue Neoplasms"[Mesh], "Behaviour Therapy"[Mesh], "Cognitive Therapy"[Mesh], "Physical Therapy Modalities"[Mesh], "Acupuncture"[Mesh], "Massage"[Mesh], "Exercise"[Mesh], "Exercise"[Mesh], "Nerve Block"[Mesh], "Injections, Spinal"[Mesh], "intrathecal therapy", "Vertebroplasty"[Mesh], "follow- up", "Physician's Role "[Mesh], "community care", "home program*", "general practitioner", hospice, "pain clinic", "Outpatients"[Mesh], "Outpatient Clinics, Hospital"[Mesh], "Ambulatory Care"[Mesh]

Appendix V: Cancer pain management questionnaire

1. How many patients of cancer pain do you manage per month?
2. What is the most frequent cancer pain that you encounter in your daily practice?
3. What are the clinical presentations of cancer related pain?
4. What are the methods used for clinical assessment of cancer pain?
5. What are the principles of management of pain in patients with cancer?
6. What is the WHO Analgesic Ladder? What are its principles? How effective is it in clinical practice?
7. Do you follow WHO step ladder approach for cancer pain management?
8. What do you prefer for step II and step III of WHO ladder?
9. What non-pharmacological techniques do you use to manage Cancer Pain
10. Do you screen all patients of substance abuse? If yes, which scale do you use.
11. What medications do you use to manage cancer pain
12. What are the major side-effects you observe due to pharmacological management and how do you manage it?
13. What are the adjuvant analgesics in cancer pain management?
14. What are the pharmacological strategies for breakthrough pain and other acute pain crises?
15. What are the roles of anti-cancer therapy in the management of cancer pain?
16. Do you manage patients using Interventional Techniques? If yes, which interventional techniques and in what percentage of patients?
17. What are the relative efficacy and safety of current invasive treatments for the treatment of cancer-related pain?
18. Do you think current treatment guidelines for cancer pain management are sufficient? If no, what changes do you suggest?
19. According to you, what steps need to be taken to spread the awareness regarding cancer pain management?