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PREVALENCE AND MANAGEMENT OF PAIN IN CANCER PATIENTS FROM A TERTIARY CARE CENTRE OF CENTRE INDIA.

Anaesthesiology

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ABSTRACT

Pain is a common symptom among patients with cancer. Inadequately treated pain remains a global public health problem. Adequate pain assessment and management are critical to improve the quality of life and health outcomes in the suffering patients. An open labelled, prospective, non-randomised study was planned in a tertiary care hospital to evaluate the epidemiology, patterns, and quality of pain care of cancer patients. To assess the adequacy of analgesic care, we used the pain management index(PMI).Non-compliance with the predefined set of indicators was generally high and the assessment of pain and its management was poor in most of the cases leading to poor quality of life(QoL) of patients.

KEYWORDS

Pain, Palliative care, Quality of life, Opioid.

INTRODUCTION:

Pain management is a critical component of palliative care. Inadequately treated pain remains a global public health problem. Unrelieved pain can have a significant negative impact on the quality of life. Health care professionals have an ethical and legal obligation to offer fully adequate pain relief to all patients who require it. Intentionally leaving a patient in pain is a breach of fundamental human rights. It is also medical negligence and unprofessional conduct.[1]

Pain is a frequent and debilitating accompaniment of cancer. In our country, more than 75% of patients are in the advanced stage of cancer when first diagnosed. Pain is the most common symptom in 70-90% of people in this stage. Approximately 30- 50% of people with cancer experience pain while undergoing treatment. Many patients also suffer from non-malignant causes of pain. Relief of pain reverses these negative effects: patients function better and can go back into social circulation. They feel more emotionally stable and may live longer than predicted as per their disease status. There is evidence that cancer survival is linked to symptom control, and that pain management contributes to improved quality of life (QoL).[2]

The aim of present study was to describe a cohort of cancer patients in terms of pain characteristics, patterns of care and patient-reported outcomes and to assess the quality of analgesic treatments in terms of congruence between the reported level of pain intensity of patients and the potency of the prescribed analgesic drug.

MATERIAL & METHOD: 40 patients with diagnostic evidence of advanced/metastatic solid tumour; persistent pain, of any degree of intensity related to cancer, requiring or already on analgesic treatment; age X18 years; life expectancy more than 1 month; and able to read, understand and provide informed consent to participate.After enrolment/inclusion, the following screening assessments were carried out and recorded weekly for the first month, with a final visit at week 12 (at the end of the study): (a) medical history including cancer history, (b) physical examination, (c) record of medications and recent therapies, including analgesic consumption, (d) pain and symptom assessment, (f) patient's and physician's satisfaction with pain treatment and (g) patient's self-reported quality of life. Pain characteristics (intensity, relief and so on) were the primary outcome measures. Other patient-reported outcomes were collected too, such as satisfaction with care, quality of life and symptoms. Pain was measured using five items from the Italian version of the Brief Pain Inventory assessing intensity of worst, present, least and average pain and pain relief with an 11-point numerical rating scale.[3] We used two methods to evaluate the analgesic under-treatment. First, we applied the pain management index (PMI), developed by Cleeland et al (1994).[4] According to the World Health Organisation's (WHO) guidelines for the management of pain in cancer, treatment is considered adequate when there is congruence between the reported level of pain of the patient and the potency of the prescribed analgesic drug (its place on the WHO analgesic ladder; WHO, 1996). [5] The PMI compares the most potent analgesic prescribed for a patient with the reported level of the worst pain of that patient. To construct the index, we determined which of four levels of analgesic drug therapy was the most potent one used: 0, no analgesic drug; 1, a non-opioid (e.g., a non-steroidal anti- inflammatory drug); 2, a weak opioid (e.g., codeine or tramadol); and 3, a strong opioid (e.g., morphine, fentanyl, buprenorphine, oxycodone and so on). We then determined the patient's level of pain from the Brief Pain Inventory (1 – 3, mild; 4 – 7, moderate; 8–10, severe). No pain was scored as 0; mild pain, 1; moderate pain, 2; and severe pain, 3. The PMI, computed by subtracting the pain level from the analgesic level, ranges from -3 (a patient with severe pain receiving no analgesic drugs) to +3 (a patient receiving morphine or an equivalent and reporting no pain). Negative scores are considered to indicate pain under treatment, and scores of 0 or higher are considered a conservative indicator of acceptable treatment.

STATISTICALANALYSIS

A descriptive analysis was run for the independent variables and the outcome, that is, knowledge regarding breast cancer risk factors, signs and symptoms considered as a continuous variable and further categorised as “good”, “fair”, and “poor” knowledge. The proportions of women having good, fair, and poor knowledge were estimated. SPSS Version 20.0 (Armonk, NY: IBM Corp) was used for analysis. Mean, standard deviation, and median were estimated, and student's t-test were used to evaluate differences between means, according to independent variables. Mean score values of variables with more than two categories were analysed by ANOVA test. Chi-square tests were used to analyse the categorical responses according to the groups. Multivariate analysis of variance was used to examine group differences in response to the scale data (total risk score and total symptom score). Adjusted variable were included in the multiple analyses based on their potential confounding effect and p-valued on univariate analyses. Univariate and multivariate linear regression analyses were used to estimate the association.

RESULTS:

The mean age of presentation was 67 years with 15% having KPSS<50.

Most of the patients were suffering from carcinoma lung followed by breast and colorectal carcinoma. Bone metastasis was present in 60% of the cases. Most of the cases were already admitted in different departments of the hospital. Most of the patients had worst pain intensity in the previous week before referral with 10% of the patients with severe pain on admission. Most of the patients were on one strong opioid and some were having a combination of both NSAIDS and an opioid.

Table 1- Percentages of patients with negative PMI score for different pain items (from Brief pain inventory)

		Time of recruiting	
Pain	All	Already admitted	New patients

Worse pain	27	21	39
Least pain	10	5	18
Current pain	14	9	23
Mean pain	17	13	25
Overall pain	12	13	24

DISCUSSION:

The new ICD (International Classification of Diseases) category for ,Chronic Pain comprises the most common clinically relevant disorders. These disorders were divided into 7 groups: (1) chronic primary pain, (2) chronic cancer pain, (3) chronic post-traumatic and post-surgical pain, (4) chronic neuropathic pain, (5) chronic headache and orofacial pain, (6) chronic visceral pain, and (7) chronic musculoskeletal pain.[6] Advances in diagnosis and therapy have extended the life expectancy of cancer patients, but for most of them, the last part of their life is impaired by pain, depression and other symptoms related to the disease and treatments that become major contributors to suffering. Considerable evidence from clinical experience shows that cancer pain may be controlled in up to 90% cases with available therapies.[7] The main aim of this analysis was to estimate the quality of analgesic drug regimens across different settings. We applied the PMI as recommended by Cleeland et al (1994) using the worst intensity of pain to calculate the score. By changing the pain measure criteria, it yields figures which cannot be fully compared, as suggested by earlier research by de Wit et al in 1999.[8] The prevalence of under-treatment found in this study (40% in the whole sample and up to 55% in some groups) compares the earlier results ranging from as low as 7–9% in a survey in the United Kingdom to 82% in a sample of non- small cell lung cancer patients entering clinical trials in Italy, with the weighted overall mean of 43% across 26 different studies[9,10]. This study shows that the baseline PMI scores are also influenced by the time of referral. Patients just referred to a centre had negative PMI more often (41%) than patients already followed by the centre. This factor has been underestimated in the literature and it should, therefore, be stressed that the patient's pain history is a significant variable in evaluating epidemiological and therapy-related information. In this study, the setting of care and receiving an adjuvant analgesic drug treatment were also predictors of the PMI status. These observations might be interpreted as indicative of a delay of starting strong opioids influenced by attitudes of practice and setting of care. Time of patient referral to the centre, considered as especially important, is not enough to explain pain and pain treatment history. Organisation and expertise in pain management and monitoring by different specialists and in different settings, such as an in-patient hospice or outpatient pain clinic, probably influence the recourse to more potent drugs. The use of adjuvants for neuropathic pain is an indicator of compliance with available guidelines, and perhaps its association with more appropriate opioid use is consistent in explaining individual differences among operators even in apparently similar settings.

Although the usefulness of the PMI is proved by the large number of studies that have used this score since 1994, some drawbacks are well known in some study and others may be derived from our analysis. It takes into account only one characteristic of pain (the intensity) and the most potent opioid prescribed, but does not reflect other pain characteristics, opioid titration, route of administration, patient's compliance, rescue and adjuvant therapies, or the use of non-pharmacological therapies.[11]For instance, for patients with neuropathic pain and severe pain, it might be more appropriate to add an adjuvant drug for neurophatic pain rather than changing the type of analgesic drugs or increase its dosage.

In summary, in this prospective observational study, the PMI method indicated a high prevalence of analgesic under-treatment in our setup, around 50% in some subgroups, which varies according to several factors related to the characteristics of the cases and to some structural and organisation variables. These findings confirm the results of a systematic review done earlier [11,12]

CONCLUSION:

Pain is most troublesome complication of any cancer and merits proper management. Many a times, the patents and their caregivers also put complains of pain in second order leading to under diagnosis and under treatment. Lack of knowledge regarding the drugs and their side effects by the physicians leads to under treatment of the same leading to increased suffering to the patients. Proper training to the medical staff and awareness to the caregivers and to the patients will improve the diagnosis and management of pain and related complications.

REFERENCES:

1. Managing Pain, The Canadian Healthcare Professional's reference by Roman D. Jovey, M.M., Editor foreword by Russell K. Portenoy,M.D., Preface by Margaret A. Somerville, AM, FRSC
2. Temel JS, JA Greer A, Muzikansky A, et al. Early palliative care for patients with metastatic non-small-cell lung cancer. N Engl J Med. 2010;363(8):733–742
3. Caraceni A, Mendoza T, Mencaglia E, Baratella C, Edwards K, Forjaz MJ, Martini C, Serlin RC, de Conno F, Cleeland CS (1996) A validation study of the Italian version of the Brief Pain Inventory (Breve Questionario perla Valutazione del Dolore). Pain 65: 87–92
4. Cleeland CS, Gonin R, Hatfiled AK, Edmonson JH, Blum RH, Stewart JA, Pandya KJ (1994) Pain and its treatments in outpatients with metastatic cancer. N Engl J Med 330: 592–596
5. World Health Organization (1996) Cancer Pain Relief, 2nd edn World Health Organization: Geneva
6. Organizational chart of Task Force, IASP, and WHO interactions. The IASP Task Force was created by the IASP council and its scope defined in direct consultation of the chairs (R.D.T. and W.R.) with WHO representatives in 2012. The Task Force reports to the IASP Council on an annual basis.
7. Mercadante S (1999) Pain treatment and outcomes for patients with advanced cancer who receive follow-up care at home. Cancer 85: 1849–1858.
8. de Wit R, van Dam F, Abu-Saad HH, Loonstra S, Zandbelt L, van Buuren A, van der Heijden K, Leenhouts G (1999) Empirical comparison of commonly used measures to evaluate pain treatment in cancer patients with chronic pain. J Clin Oncol 17: 1280–1287.
9. Russell PB, Aveyard SC, Oxenham DR (2006) An assessment of methods used to evaluate the adequacy of cancer pain management. J Pain Symptom Manage 32: 581–588
10. Di Maio M, Gridelli C, Gallo C, Manzione L, Brancaccio L, Barbera S, Robbiati SF, Ianniello GP, Ferrau` F, Piazza E, Frontini L, Rosetti F, Carrozza F, Bearz A, Spatafora M, Adamo V, Isa L, Iaffaioli RV, Di Salvo E, Perrone F (2004) Prevalence and management of pain in Italian patients with advanced non-small-cell lung cancer. Br J Cancer 90: 2288–2296.
11. Deandrea S, Montanari M, Moja L, Apolone G (2008) Prevalence of undertreatment in cancer pain. A review of published literature. Ann Oncol 19: 1985–1991
12. Hanks G, De Conno F, Cherny N, Hanna M, Kalso E, McQuay HJ , Mercadante S, Meynadier J, Poulain P, Ripamonti C, Radbruch L, Casas JR, Sawe J, Twycross RG, Ventafridda V, Expert Working Group of the Research Network of the European Association for Palliative Care (2001) Morphine and alternative opioids in cancer pain the EAPC recommen- dations. Br J Cancer 84: 587–593